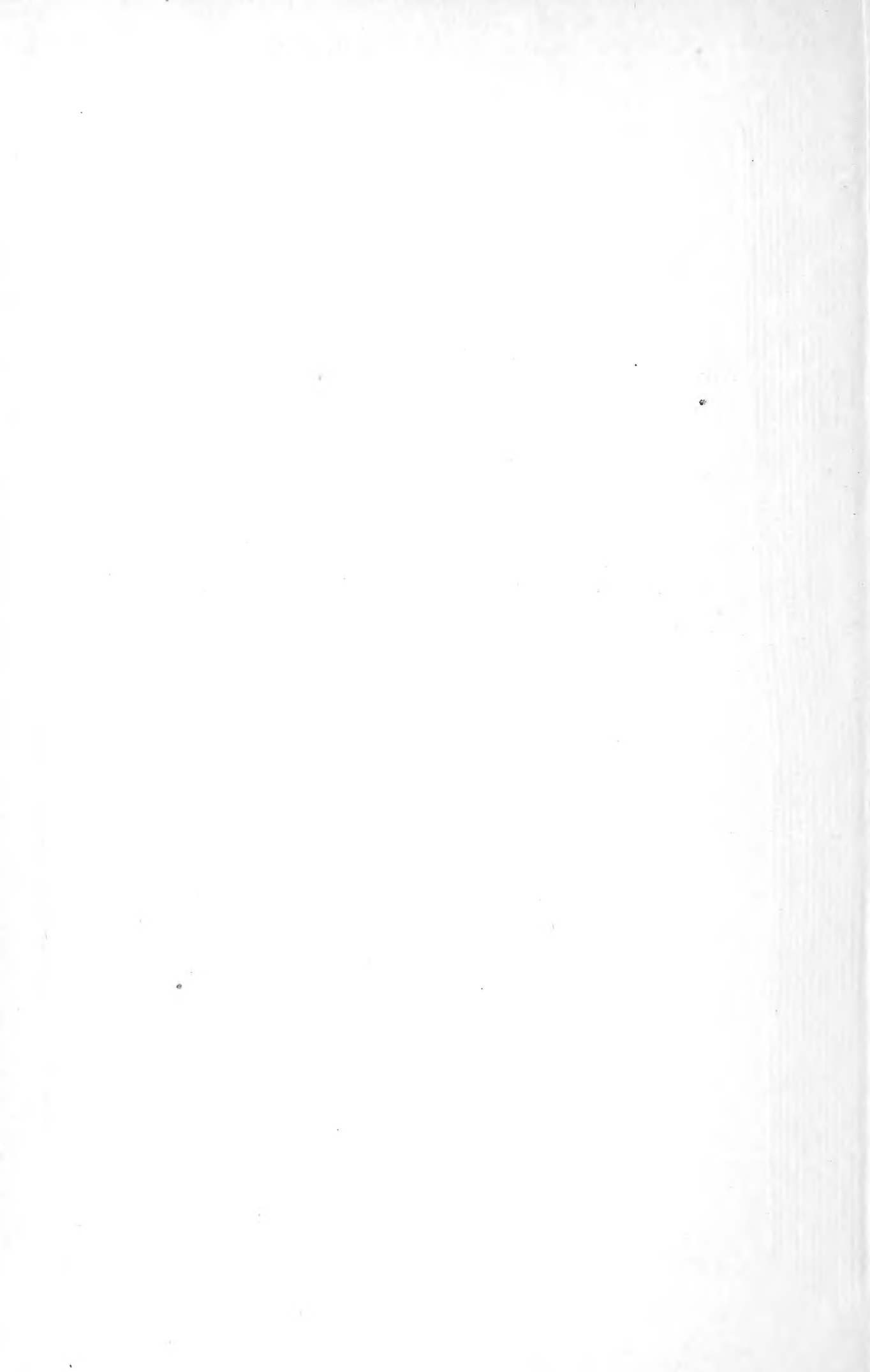


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U. S. DEPARTMENT OF AGRICULTURE.
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OF

THE MORE IMPORTANT CONTRIBUTIONS

TO

AMERICAN ECONOMIC ENTOMOLOGY.

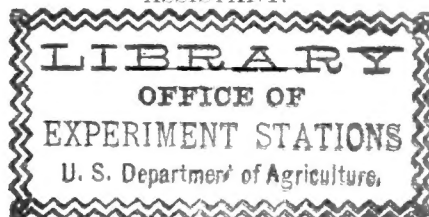
PART VII.

THE MORE IMPORTANT WRITINGS PUBLISHED BETWEEN
DECEMBER 31, 1896, AND JANUARY 1, 1900.

PREPARED UNDER THE DIRECTION OF THE ENTOMOLOGIST.

BY

NATHAN BANKS,
ASSISTANT.



WASHINGTON:

GOVERNMENT PRINTING OFFICE.

1901.

DIVISION OF ENTOMOLOGY.

Entomologist: L. O. Howard.

First Assistant Entomologist: C. L. Marlatt.

Assistant Entomologists: Th. Pergande, F. H. Chittenden, Frank Benton.

Investigators: E. A. Schwarz, D. W. Coquillett.

Assistants: R. S. Clifton, Nathan Banks, F. C. Pratt, Aug. Busck, Otto Heidemann,
A. N. Caudell, J. Kotinsky.

Artist: Miss L. Sullivan.

FORTY-SEVENTH CONGRESS, FIRST SESSION.

CONGRESS OF THE UNITED STATES,
IN THE HOUSE OF REPRESENTATIVES,

June 24, 1882.

Resolved, By the House of Representatives (the Senate concurring),
that there be printed, for the use of the Department of Agriculture,
one thousand copies of a special report entitled "Bibliography of
Economic Entomology."

Attest:

EDW. MCPHERSON, *Clerk*.

Passed the Senate July 6, 1882.

F. E. SHOBER, *Acting Secretary*.

A true copy.

EDW. MCPHERSON, *Clerk*.



LETTER OF TRANSMITTAL.

U. S. DEPARTMENT OF AGRICULTURE,

DIVISION OF ENTOMOLOGY,

Washington, D. C., November 28, 1900.

SIR: I transmit herewith for publication Part VII of the Bibliography of the More Important Contributions to American Economic Entomology, bringing the whole bibliography down to the close of the calendar year 1899.

Respectfully,

L. O. HOWARD,
Entomologist.

Hon. JAMES WILSON,
Secretary of Agriculture.



BIBLIOGRAPHY OF THE MORE IMPORTANT CONTRIBUTIONS TO AMERICAN ECONOMIC ENTOMOLOGY.

PART VII.

1. ALDRICH, J. M. Report of the Department of Entomology. <Bull. No. 15, Idaho Agric. Exp. Sta., July, 1898, pp. 167-176, 2 figs.
Notes on grasshoppers, *Camnula pellucida*, *Leptocoris trivittata*; kerosene against mosquitoes, *Aspidiotus ancyclus*.
2. ALDRICH, J. M. The San Jose scale in Idaho. <Bull. No. 16, Idaho Agric. Exp. Sta., March, 1899, pp. 16, 3 figs., 2 pls.
A general account of the insect.
3. ALDRICH, J. M. Insects affecting sugar beets. <Bull. No. 18, Idaho Agric. Exp. Sta., July, 1899, pp. 35-36.
Notes on cutworms, flea-beetles, blister beetles, garden webworm, and wireworms.
4. ALWOOD, W. B. Instruction for winter treatment of the San Jose scale. <So. Planter, January, 1897, p. 19.
5. ALWOOD, W. B. Notes on treatment of the San Jose scale, with directions for work in winter. <Bull. No. 72, Va. Agric. Exp. Sta., January, 1897, pp. 11.
6. ALWOOD, W. B. First annual report of the State inspector for the San Jose scale, 1896-97. Richmond, Va., November, 1897, pp. 15.
Infested localities in the State.
7. ALWOOD, W. B. Inspection in relation to the suppression of the San Jose scale. <Trans. Amer. Assoc. Nurserymen, 1897, pp. 25-33.
8. ALWOOD, W. B. Some enemies of the fruit grower. <Proc. Ga. St. Hort. Soc., 1897, pp. 38-42.
Notes on *Aspidiotus perniciosus*, *Lecanium persica*, and new peach scale.
9. ALWOOD, W. B. [Legislation against insects.] <Proc. Ga. St. Hort. Soc., 1897, pp. 44-50.
10. ALWOOD, W. B. Recommendations as to State and national legislation relating to insect pests and plant diseases. Washington, 1897.

11. ALWOOD, W. B. Winter treatment for San Jose scale destruction. <So. Planter, February, 1898, pp. 66-67.
12. ALWOOD, W. B. Inspection and remedial treatment of San Jose scale. <Bull. No. 79, Va. Agric. Exp. Sta., August, 1897 (February, 1899), pp. 73-94, 3 figs.
13. ALWOOD, W. B. The San Jose scale question. <Rural New Yorker, 19 February, 1898, p. 127.
14. ALWOOD, W. B. San Jose scale. <Rural New Yorker, 12 March, 1898, p. 180.
15. ALWOOD, W. B. Legislation for the suppression of the San Jose scale in Virginia. <So. Planter, May, 1898, pp. 238-240.
16. ALWOOD, W. B. Summer treatment for the San Jose scale. <So. Planter, June, 1898, pp. 271-274.
17. ALWOOD, W. B. Notes on life history of the woolly aphis of the apple. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 70-72.
18. ALWOOD, W. B. On the life history of *Protoparce carolina*. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 72-74.
19. ALWOOD, W. B. Spraying the orchard. <Bull. No. 100, Va. Agric. Exp. Sta., May, 1899, pp. 83-104, 10 figs.
Directions as to time and preparation of insecticides.
20. ALWOOD, W. B. Second report of the State inspector for the San Jose scale. Richmond, 1899, pp. 34, 1 map.
Distribution of the scale in the State.
21. ALWOOD, W. B. The crop-pest law. <Bull. No. 102, Va. Agric. Exp. Sta., July, 1899, pp. 129-152.
22. ANDERSON, J. D. After the boll weevil. <Texas Stockman and Farmer, 8 December, 1897, p. 4.
23. [*Aspidiotus perniciosus*] San Jose scale. <American Florist, 3 June, 1899, pp. 1309-1310; 10 June, 1899, pp. 1334-1335.
Discussion regarding the comparative value of "inspection" and "fumigation," participated in by a number of entomologists and horticulturists.
24. ATWOOD, G. G. Five rules for spraying. <Country Gentleman, 15 June, 1899.
25. AUSTEN, W. Bookworms in fact and fancy. <Pop. Sci. Mo., June, 1899, pp. 140-148.
A general article on the ravages of these pests.
26. AUSTIN, F. The codlin moth. <Rural Californian, May, 1898, p. 150.
27. BAILEY, L. H. Garden making. New York, 1898, pp. 411.
Many notes on remedies for insect pests.

28. BAILEY, L. H. The San Jose scale. <Vick's Ill. Magazine, December, 1899, p. 79.
29. BAKER, C. F. The San Jose scale; a warning to the fruit growers of Alabama. <Bull. No. 77, Ala. Agric. Exp. Sta., January, 1897, pp. 27-31.
30. BAKER, C. F. Some other insect pests. <Bull. No. 77, Ala. Agric. Exp. Sta., January, 1897, pp. 31-34.
Notes on tomato worms, grape leaf-hoppers, and cabbage worms.
31. BAKER, C. F. More about the San Jose scale. A sweet-potato pest. Regarding carbon bisulfid. Insecticides and pumps in general. <Bull. No. 86, Ala. Agric. Exp. Sta., August, 1897, pp. 451-456, 2 figs.
32. BAKER, C. F. The peach-tree borer and the fruit bark-beetle. <Bull. No. 90, Ala. Agric. Exp. Sta., January, 1898, pp. 25-37, 7 figs.
Life habits and remedies against these two insects.
33. BAKER, J. E. Cure for cutworms. <Oreg. Agric. and Rural Northwest, 15 August, 1897, p. 349.
Trapped by poisoned bait.
34. BALDWIN, H. J. Ten thousand squash bugs. <Amer. Gardening, 22 January, 1898.
Trapped them.
35. [BALMER, J. A.] Kohlmeise for codlin moth. <Calif. Fruit Grower, December, 1897.
Advises introduction of the great titmouse (*Parus major*) to keep down the codling moth.
36. BANCROFT, E. H. The San Jose scale in Delaware in 1897. <Trans. Penin. Hortic. Soc., February, 1898, pp. 113-128.
37. BARNES, W. H. No San Jose scale in Kansas. <Colman's Rural World, 17 February, 1898, p. 51.
38. BARROWS, W. B. The present status of the San Jose scale in Michigan. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 27-29.
39. BARROWS, W. B. Notes on the malodorous carabid, *Nomius pygmaeus*, Dej. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 49-53.
40. BAXTER, S. The orange fruit worm. <Garden and Forest, 17 March, 1897, p. 108.
41. BEACH, F. W. Black beetle on asters. <Florists' Review, 1 September, 1898.
42. BEACH, S. A. Gooseberries. <15th Ann. Rept., N. Y. State Agric. Exp. Sta. f. 1896 (1897), pp. 339-341, 2 figs.
Brief notice of *Nematus ventricosus*, *Ageria tipuliformis*, *Puccilapsus lineatus*, *Epochra canadensis*, and San Jose scale.

43. BEACH, S. A., V. H. LOWE, and F. C. STEWART. Common diseases and insects injurious to fruits. <Bull. No. 170, N. Y. State Agric. Exp. Sta., December, 1899, pp. 381-445.
Treats of a large number of species, giving habits and remedies.
44. BEHR, H. H. Notes on ticks. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 90-92.
Notes on *Ornithodoros americana*.
45. BENNETT, S. E. Insect pests in poultry. <St. Louis Journ. Agric., 28 April, 1898, p. 367.
Brief notice of a few species.
46. BENSON, M. Plant enemies and how to fight them. <Vick's Mo. Magazine, May, 1899.
47. BERGHOLZ, L. Destruction of locusts. <U. S. Consular Reports, No. 209, pp. 269-270. <Nebraska Farmer, 5 May, 1898, p. 283.
Destruction of grasshoppers by use of arsenicals in Natal.
48. BERRY, M. The red spider. <Calif. Fruit Grower, 3 September, 1898, p. 1.
49. BERWICK, E. Codlin moth and kohlmeise. <Pacific Rural Press, 24 December, 1898, p. 413.
50. BERWICK, E. Is codlin moth quarantinable? <Pacific Rural Press, 7 August, 1899, p. 83.
51. BETHUNE, C. J. S. Notes on the insects of the year 1896. <27th Ann. Rept. Ent. Soc. Ontario f. 1896 (1897), pp. 55-58, 2 figs.
Notes on *Leucania unipuncta*, *Orgyia leucostigma*, *Macrobasis unicolor*, *Clisiocampa americana*, *Coleophora fletcherella*, and *Hyphantria cunea*.
52. BETHUNE, C. J. S. Notes on the season of 1897. <28th Ann. Rept. Ent. Soc. Ontario f. 1897 (1898), pp. 31-34, 4 figs.
Notes on plant lice, *Tmetocera ocellana*, *Clisiocampa americana*, *Hyphantria cunea*, *Orgyia leucostigma*, *Leucania unipuncta*, and *Graptodera chalybea*.
53. BETHUNE, C. J. S. Some household insects. <28th Ann. Rept. Ent. Soc. Ontario f. 1897 (1898), pp. 51-61, 7 figs.
Notes on cockroaches, ants, mosquitoes, fleas, and bedbugs.
54. BETHUNE, J. A. Cutworms, tomato blight, etc. <So. Planter, May, 1897, p. 218.
55. BIRD, W. N. Texas fever tick (*Boophilus bovis*). <Tenn. Farmer, 29 July, 1899, p. 1, 3 figs.
56. BISHOP, J. S. Cranberry pests and how to combat them. <Rept. Fruit Growers' Assoc. Nova Scotia f. 1899, pp. 99-103.
Treats chiefly of the fireworm, fruit worm, and spanworm.
57. BITTING, A. W. Sheep scab. <Bull. No. 80, Ind. Agric. Exp. Sta., September, 1899, pp. 63-76, 8 figs.
Treats of *Psoroptes communis*.
58. BLAIR, J. C. Spraying. <Trans. Ill. State Hortic. Soc. f. 1897, pp. 287-290.

59. BLAIR, J. C. Spraying apple trees, with special reference to apple scab fungus. <Bull. No. 54, Ill. Agric. Exp. Sta., March, 1899, pp. 181-204.
Notes on spraying for codling moth.
60. BOGUE, E. E. Some injurious orchard insects. <Bull. No. 26, Okla. Agric. Exp. Sta., June, 1897, pp. 22, 18 figs.
Treats of various common species.
61. BOGUE, E. E. The San Jose scale in Oklahoma. <Bull. No. 34, Okla. Agric. Exp. Sta., May, 1898, pp. 6, 3 figs.
Occurrence of the scale in the Territory.
62. BRAUCHER, R. W. My experience in spraying Illinois orchards for scale insects. <Trans. Ill. State Hortic. Soc. f. 1898 (1898), pp. 24-30.
63. BRIGGS, F. P. The peach tree borer. <Agric. Epitomist, June, 1897.
64. BRITTON, W. E. Insect notes. <Rept. Conn. Agric. Exp. Sta. f. 1896 (1897), pp. 234-245, 6 pls.
Notes on *Paleacrita vernata*, *Anisopteryx pometaria*, *Leucania unipuncta*, *Phyllæus flaviventris*, *Scolytus rugulosus*, *Heliothrips astri*, and *Crioceris asparagi*.
65. BRITTON, W. E. The plant-house Aleyrodes. <Garden and Forest, 19 May, 1897, p. 194, 1 fig.
Account of *Aleyrodes vaporariorum*.
66. BRITTON, W. E. Our street trees and the elm-leaf beetle. <Garden and Forest, 18 August, 1897, pp. 326-327.
67. BRITTON, W. E. Insect notes of the season. <Rept. Conn. Agric. Exp. Sta. f. 1897 (April, 1898), pp. 314-319.
Notes on *Anthonomus quadrigibbus*, *Aspidiotus perniciosus*, *Spilosoma virginica*, *Haltica chalybea*, *Pemphigus acerifolii*, *Gortyna nitela*, *Silvanus surinamensis*, *Pyralis farinalis*, and plant lice.
68. BRITTON, W. E. Insecticides; their preparation and use. <Bull. No. 126, Conn. Agric. Exp. Sta., May, 1898, pp. 12.
Detailed directions for preparation and use.
69. BRITTON, W. E. The San Jose scale in Connecticut. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 81-84, 1 map.
Distribution of scale in the State.
70. BRITTON, W. E. Inspection and care of nursery stock. <Bull. No. 129, Conn. Agric. Exp. Sta., May, 1899, pp. 10.
Chiefly to guard against San Jose scale.
71. BRITTON, W. E. Entomological notes. <22d Ann. Rept. Conn. Agric. Exp. Sta., f. 1898 (August, 1899), pp. 269-275.
Brief notes on a number of species.
72. BRODIE, W. The spruce gall-louse. <Bureau of Forestry, Ontario Dept. Agric., 1 May, 1898, 2 pp., 1 plate.
Account of *Chermes abietis*.

73. BROWN, A. The pecan caterpillar. <Fla. Farmer and Fruit Grower, 18 September, 1898.

Notes on damage of two unnamed species.

74. BRUNER, L. Grasshopper report for 1895. <Bull. No. 7, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 31-35.

75. BRUNER, L. Grasshopper report for 1896. <Bull. No. 7, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 36-39.

76. BRUNER, L. Insect enemies of forest trees. <Ann. Rept. Nebr. State Hortic. Soc. f. 1897, pp. 61-67.

General article on forest insects.

77. BRUNER, L. Insect enemies of the apple and its fruit. <Ann. Rept. Nebr. State Hortic. Soc. f. 1898 (1899), pp. 121-212, 108 figs.

Treats of insects affecting apples.

78. BRUNER, L. A plea for the protection of our birds. <Special Bull. No. 3, Dept. Ent., Univ. Nebr., February, 1899, pp. 4. Value of birds in destroying injurious insects.

79. BRUNER, L. Precautions against chinch bugs. <Nebraska Farmer, 1 June, 1899.

80. BRUNER, L. How to kill grasshoppers. <Nebraska Farmer, 10 August, 1899. <Farm, Field and Fireside, 29 July, 1899, pp. 937-938, 3 figs.

81. BRYANT, A. W. Spraying; when, how, and why. <Trans. Ill. State Hortic. Soc. f. 1898, pp. 253-256.

82. BUFFUM, B. C. Insect enemies and diseases of potatoes. <Bull. No. 32, Wyo. Agric. Exp. Sta., March, 1897, pp. 12-17.

Notes on *Doryphora 10-lineata*, Utah cricket and potato maggot.

83. BUFFUM, B. C. Cultivated shade and forest trees. <Bull. No. 38, Wyo. Agric. Exp. Sta., September, 1898, pp. 26-32, 1 fig.

A chapter on common insect enemies of the trees mentioned.

84. BURGESS, A. F. Notes on certain Coleoptera known to attack the gypsy moth. <Rept. Mass. Bd. Agric. f. 1896 (1897), pp. 412-433, 3 pls.

Life history of *Calosoma calidum* and *C. frigidum*.

85. BURGESS, A. F. Notes on predaceous beetles, 1897. <Rept. State Bd. Agric. (Mass.) on extermination of the gypsy moth, January, 1898, pp. 102-112.

Species of *Calosoma*, *Pterostichus lucublandus*, and *Harpalus caliginosus*.

86. BURGESS, A. F. An abnormal Coccinellid. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 59-60.

Note on *Adalia bipunctata* var. *humeralis*.

87. BURGESS, A. F. A destructive tan-bark beetle. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 107-108.

Account of attack by *Dinoderus substriatus*.

88. BURRELL, M. Peach borer. <Rept. Fruit Growers' Assoc. Ontario, 1898, pp. 15-17.
89. BUTZ, G. C. The peach industry in Pennsylvania. <Bull. No. 37, Pa. Agric. Exp. Sta., January, 1897, pp. 21-28, 2 figs.
Notes on the insect enemies of the peach.
90. BUTZ, G. C. Some common strawberry pests. <Amer. Agriculturist, 18 June, 1898, p. 764.
Notes on *Typophorus canellus* and *Tyloderma fragariæ*.
91. BUTZ, G. C. Apples in Pennsylvania. <Bull. No. 43, Pa. Agric. Exp. Sta., July, 1898, pp. 13-15.
Short account of chief injurious apple insects.
92. BUTZ, G. C. A strawberry pest. <Amer. Grange Bull., 8 December, 1898.
Note on *Tyloderma fragariæ*.
93. CALIFORNIA STATE BOARD OF HORTICULTURE. The control of insect pests. <Prelim. Rept. (Sixth Bien.) State Bd. Hortic. Calif., 1897-98 (1899), pp. 76-88.
Notes on insecticides, *Schizoneura lanigera*, *Carpocapsa pomonella*, *Anarsia lineatella*, and hydrocyanic-acid gas.
94. CARD, F. W. Observations on the codling moth. <Bull. No. 51, Nebr. Agric. Exp. Sta., December, 1897, pp. 50, 5 figs.
<Ann. Rept. Nebr. State Hortic. Soc. f. 1898, pp. 74-118, 5 figs.
A full consideration of remedies.
95. CARD, F. W. Notes on the codling moth. <Gard. and Forest, 4 August, 1897, pp. 302-303.
96. CARD, F. W. New facts about an old foe. <Amer. Agriculturist, 16 April, 1898, p. 494.
Notes on the codling moth.
97. CARD, F. W. Killing the codling moth. <Nebraska Farmer, 28 April, 1898, p. 263.
98. CARDWELL, J. R. The Aphididæ. <Rept. State Bd. Hortic. Oreg. f. 1897-98 (1899), pp. 433-435.
99. CARLYLE, W. L. Protecting cows from flies. <16th Ann. Rept. Wis. Agric. Exp. Sta., 1899, pp. 92-96.
Experiments in stabling against *Stomoxys calcitrans* and *Hæmatobia serrata*.
100. CARNOCHAN, J. The San Jose scale. <Rural New Yorker, 8 July, 1899, p. 495.
101. CASEY, J. R. The codlin moth. <Rept. State Bd. Hortic. Oreg. f. 1897-98 (1899), pp. 413-416.
102. CAVANAUGH, G. W. Some spraying mixtures. <Bull. No. 149, Cornell Univ. Agric. Exp. Sta., July, 1898, pp. 719-721.
Analyses of several insecticides.
103. CHAMBERLIN, J. Cold winters and insect pests. <Country Gentleman, 6 July, 1899.

104. CHAMBLISS, C. E. Scale insects; San Jose and other species.
 <Bull., Vol. X, No. 4, Tenn. Agric. Exp. Sta., December,
 1897, pp. 141-151, 2 figs.
Treats of Aspidiotus perniciosus, A. uræ, Diaspis rosæ, Pulvinaria innumerabilis,
Lecanium nigrofasciatum, and Chionaspis furfurus.
105. CHAPAIS, J. C. Some insects to be combated. <Naturaliste
 Canadien, XXIV, 1897, p. 10.
106. CHITTENDEN, F. H. The strawberry weevil. <Cir. No. 21, s. s.,
 Div. Ent., U. S. Dept. Agric., 1897, pp. 7, 4 figs.
 Full account of *Anthonomus signatus*.
107. CHITTENDEN, F. H. The two-lined chestnut borer. <Cir. No.
 24, s. s., Div. Ent., U. S. Dept. Agric., August, 1897, pp. 8,
 1 fig.
 Damage by and remedies for *Agrilus bilineatus*.
108. CHITTENDEN, F. H. The rose leaf-beetle. <Bull. No. 7, n. s.,
 Div. Ent., U. S. Dept. Agric., 1897, pp. 60-61, 1 fig.
 Habits of and injury by *Nodonota puncticollis*.
109. CHITTENDEN, F. H. Insect injury to chestnut and pine trees in
 Virginia and neighboring States. <Bull. No. 7, n. s., Div.
 Ent., U. S. Dept. Agric., 1897, pp. 67-75, 2 figs.
 Treats chiefly of *Agrilus bilineatus* and *Dendroctonus frontalis*.
110. CHITTENDEN, F. H. Recent damage by strawberry weevil.
 <Bull. No. 7, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp.
 78-79.
 Injuries by *Anthonomus signatus* in Maryland and Virginia.
111. CHITTENDEN, F. H. Note on the Scolytid, *Xyleborus tachy-*
graphus Zimm. <Bull. No. 7, n. s., Div. Ent., U. S. Dept.
 Agric., 1879, pp. 79-80.
112. CHITTENDEN, F. H. The harlequin cabbage bug on asparagus.
 <Bull. No. 7, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp.
 80-81.
113. CHITTENDEN, F. H. A storehouse moth new to the United
 States, with notes on other species. <Bull. No. 8, n. s.,
 Div. Ent., U. S. Dept. Agric., 1897, pp. 7-10, 1 fig.
 Treats chiefly of *Ephestia cahiritella* and *E. elutella*.
114. CHITTENDEN, F. H. Notes on grain beetles of the genus *Silvanus*.
 <Bull. No. 8, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp.
 10-13, 4 figs.
 Notes on *S. bicornis*, *S. mercator*, and description of *S. gossypii* n. sp.
115. CHITTENDEN, F. H. Granivorous and other habits of certain
 Dermestidæ. <Bull. No. 8, n. s., Div. Ent., U. S. Dept.
 Agric., 1897, pp. 14-24, 1 fig.
 Notes on *Attagenus piceus*, *Trogoderma tarsale*, *T. sternale*, and *Anthrenus*
verbasci.

116. CHITTENDEN, F. H. Weevils that affect the seed of the cowpea. <Bull. No. 8, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 24-29, 2 figs.
Notes on *Bruchus chinensis*, *B. 4-maculatus*, and *B. obtectus*.
117. CHITTENDEN, F. H. Development of the common bean weevil. <Bull. No. 8, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 29-30.
118. CHITTENDEN, F. H. A little-known grain weevil. <Bull. No. 8, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 30-31.
Notes on *Calophylus latinasus*.
119. CHITTENDEN, F. H. On the occurrence of the grain moth (*Tinea granella* L.) in America. <Bull. No. 8, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 31-35.
General account of the insect.
120. CHITTENDEN, F. H. An invasion of the coffee-bean weevil. <Bull. No. 8, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 36-38, 1 fig.
Treats of *Aræcerus fasciculatus*.
121. CHITTENDEN, F. H. Parasites of flour and meal moths. <Bull. No. 8, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 38-43, 1 fig.
A list of the species, with notes.
122. CHITTENDEN, F. H. A foreign parasite of the grain weevils. <Bull. No. 8, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 43-45.
Note on *Chatospila elegans*.
123. CHITTENDEN, F. H. Notes on certain species of Coleoptera that attack useful plants. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 20-24.
Notes on *Orsodachna atra*, *Colaspis brunnea*, *Phyllotreta armoracix*, *Psylliodes punctulata*, *Chaetocnema pulicaria*, *C. confinis*, *Odontota dorsalis*, *Chelymiorpha argus*, *Epicauta trichrus*, *Macroductylus angustatus*, and *Anthonomus nigrinus*.
124. CHITTENDEN, F. H. The bean leaf-beetle. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 64-71, 1 fig.
Full account of *Cerotoma trifurcata*.
125. CHITTENDEN, F. H. The asparagus beetles. <Yearbook U. S. Dept. Agric. f. 1896 (1897), pp. 341-352, 6 figs.
Detailed account of both species.
126. CHITTENDEN, F. H. Notes on cucumber beetles. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 26-31, 2 figs.
127. CHITTENDEN, F. H. Insects that affect asparagus. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 54-62, 1 fig.
Accounts of and remedies for the various species.

128. CHITTENDEN, F. H. The tobacco flea-beetle. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 79-82, 1 fig.
Treats of *Epitrix parvula*.
129. CHITTENDEN, F. H. Notes on the strawberry weevil; its injuries and bibliography. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 82-87.
Accounts of damage.
130. CHITTENDEN, F. H. A little-known Tineid moth of indoor habits. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 90-91.
Notes on *Tinea ferruginella*.
131. CHITTENDEN, F. H. Another moth likely to be taken for *Tinea granella*. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, p. 91.
Note on *Tinea misella*.
132. CHITTENDEN, F. H. Parasites of bean and cowpea weevils. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, p. 92.
List of species, with notes.
133. CHITTENDEN, F. H. On the food habits of the harlequin cabbage bug. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 94-95.
Additional food plants.
134. CHITTENDEN, F. H. The fruit-tree bark-beetle. <Cir. No. 29, s. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 8, 4 figs.
Full account of *Scolytus rugulosus*.
135. CHITTENDEN, F. H. The striped cucumber beetle. <Cir. No. 31, s. s., Div. Ent., U. S. Dept. Agric., May, 1898, pp. 7, 2 figs.
Detailed account of *Diabrotica vittata*.
136. CHITTENDEN, F. H. The larger apple-tree borers. <Cir. No. 32, s. s., Div. Ent., U. S. Dept. Agric., June, 1898, pp. 12, 3 figs.
Treats of *Saperda candida*, *S. cretata*, and *Chrysobothris femorata*.
137. CHITTENDEN, F. H. Insect injury to millet. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 84-86.
138. CHITTENDEN, F. H. Twig pruners and allied species. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 35-43, 4 figs.
Treats of *Elaphidion villosum* and several other species of the genus.
139. CHITTENDEN, F. H. A destructive borer enemy of birch trees. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 44-51, 3 figs.
Treats of *Agrilus anxius*.

140. CHITTENDEN, F. H. A leaf-tyer of grape and elderberry.
 <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp.
 82-83.
 Habits of *Phlyctania tertialis*.
141. CHITTENDEN, F. H. A flea-beetle living on purslane. <Bull.
 No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 83-85.
 Notes on *Disonycha caroliniana*.
142. CHITTENDEN, F. H. Biologic note on *Comotrachelus elegans* Say.
 <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp.
 94-95.
143. CHITTENDEN, F. H. A new sugar-beet beetle. <Bull. No. 18,
 n. s., Div. Ent., U. S. Dept. Agric., 1898, p. 95.
 Note on *Monoxia puncticollis* Say.
144. CHITTENDEN, F. H. A leaf-beetle injurious to cultivated sun-
 flower. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric.,
 1898, p. 96.
 Note on *Chrysomela (Zygogramma) exclamationis*.
145. CHITTENDEN, F. H. Recent injury by bark-beetles; a correc-
 tion. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric.,
 1898, p. 96.
 Notes on *Dendroctonus rufipennis*.
146. CHITTENDEN, F. H. The squash ladybird; its literature and
 biology. <Bull. No. 19, n. s., Div. Ent., U. S. Dept. Agric.,
 April, 1899, pp. 11-20, 2 figs.
 Account of *Epilachna borealis*.
147. CHITTENDEN, F. H. Life history of the common squash bug.
 <Bull. No. 19, n. s., Div. Ent., U. S. Dept. Agric., April,
 1899, pp. 20-28, 3 figs.
 Account of *Anasa tristis*.
148. CHITTENDEN, F. H. The horned squash bug. <Bull. No. 19,
 n. s., Div. Ent., U. S. Dept. Agric., April, 1899, pp. 28-34,
 1 fig.
 Account of *Anasa armigera*.
149. CHITTENDEN, F. H. Some observations in the life history of
 the squash-vine borer. <Bull. No. 19, n. s., Div. Ent.,
 U. S. Dept. Agric., April, 1899, pp. 34-40, 2 figs.
 An account of *Melittia satyriniformis*.
150. CHITTENDEN, F. H. Notes on the pickle worm and melon cater-
 pillar. <Bull. No. 19, n. s., Div. Ent., U. S. Dept. Agric.,
 April, 1899, pp. 41-44.
 Notes on *Margaronia nitidalis* and *M. hyalinata*.
151. CHITTENDEN, F. H. Leaf-footed plant-bugs which attack cucur-
 bits. <Bull. No. 19, n. s., Div. Ent., U. S. Dept. Agric.,
 April, 1899, pp. 44-48, 2 figs.
 Treats of *Leptoglossus oppositus* and *L. phyllopus*.
 14507-01-2

152. CHITTENDEN, F. H. Notes on the striped cucumber beetle. <Bull. No. 19, n. s., Div. Ent., U. S. Dept. Agric., April, 1899, pp. 48-51, 1 fig.
Notes on *Diabrotica vittata*.
153. CHITTENDEN, F. H. A new web-worm enemy of cabbage and other cruciferous plants. <Bull. No. 19, n. s., Div. Ent., U. S. Dept. Agric., April, 1899, pp. 51-57, 1 fig.
Treats of *Hellula undalis*.
154. CHITTENDEN, F. H. Notes on the garden flea-hopper. <Bull. No. 19, n. s., Div. Ent., U. S. Dept. Agric., April, 1899, pp. 57-62, 1 fig.
Account of *Halticus uhleri*.
155. CHITTENDEN, F. H. The imbricated snout-beetle. <Bull. No. 19, n. s., Div. Ent., U. S. Dept. Agric., April, 1899, pp. 62-67, 1 fig.
Notes on *Epicærus imbricatus*.
156. CHITTENDEN, F. H. The brown fruit-chafer. <Bull. No. 19, n. s., Div. Ent., U. S. Dept. Agric., April, 1899, pp. 67-74, 1 fig.
Account of *Euphoria inda*.
157. CHITTENDEN, F. H. Biologic notes on the May beetle. <Bull. No. 19, n. s., Div. Ent., U. S. Dept. Agric., April, 1899, pp. 74-80, 3 figs.
Treats of *Lachnosterna arcuata*.
158. CHITTENDEN, F. H. The spinach flea-beetle. <Bull. No. 19, n. s., Div. Ent., U. S. Dept. Agric., April, 1899, pp. 80-85, 1 fig.
Account of *Disomycha xanthomelæna*.
159. CHITTENDEN, F. H. Biologic and other notes on the flea-beetles which attack solanaceous plants. <Bull. No. 19, n. s., Div. Ent., U. S. Dept. Agric., April, 1899, pp. 85-90, 1 fig.
Notes on *Epitrix parvula*, *E. fuscula*, and *E. cucumeris*.
160. CHITTENDEN, F. H. The cherry leaf-beetle. <Bull. No. 19, n. s., Div. Ent., U. S. Dept. Agric., April, 1899, pp. 90-93.
Notes on *Galerucella caricollis*.
161. CHITTENDEN, F. H. Notes on the plum- and rose leaf-beetles. <Bull. No. 19, n. s., Div. Ent., U. S. Dept. Agric., April, 1899, pp. 93-95.
Notes on *Nodonota tristis* and *N. puncticollis*.
162. CHITTENDEN, F. H. Notes on the fruit-tree bark-beetle and other borers affecting fruit trees. <Bull. No. 19, n. s., Div. Ent., U. S. Dept. Agric., April, 1899, pp. 96-99.
Besides *Scolytus rugulosus* there are notes on *Chion cinctus*, *Amphicerus bicaudatus*, and *Oobaea ocellata*.

163. CHITTENDEN, F. H. The squash-vine borer. <Cir. No. 38, s. s., Div. Ent., U. S. Dept. Agric., April, 1899, pp. 6, 2 figs.
A general account of the insect.
164. CHITTENDEN, F. H. Insects injurious to beans and peas. <Year-book Dept. Agric. f. 1898 (May, 1899), pp. 232-260, 17 figs.
A general account of the various species.
165. CHITTENDEN, F. H. Insect enemies of the white pine. <Bull. No. 22, Div. Forestry, U. S. Dept. Agric., September, 1899, pp. 55-61, 10 figs.
Brief notice of a number of species.
166. CLARK, I. M. Lye after kerosene. <Pacific Rural Press, 15 April, 1899, p. 230.
Treatment for San Jose scale.
167. COATES, L. San Jose scale in Eastern orchards. <Calif. Fruit Grower, 5 February, 1898, p. 4.
168. COCKERELL, T. D. A. The palmetto scale. <Garden and Forest, 13 January, 1897, p. 19.
Note on *Comstockiella sabalis*.
169. COCKERELL, T. D. A. The codling moth. <S. W. Farm and Orchard, January, 1897; May, 1897.
170. COCKERELL, T. D. A. On the danger to American horticulture from the introduction of injurious insects. Mesilla, N. Mex., 15 February, 1897, pp. 4.
Treats chiefly of scale insects, giving a list of exotic injurious species.
171. COCKERELL, T. D. A. Further note on *Aspidiotus ancylus*. <S. W. Farm and Orchard, March, 1897.
172. COCKERELL, T. D. A. A new mealy-bug (*Dactylopius pseudo-nipae*). <Science Gossip, April, 1897, p. 302.
Found in hothouses in Michigan and California.
173. COCKERELL, T. D. A. An orchid scale (*Aspidiotus biformis*). <Garden and Forest, 21 April, 1897, p. 158.
174. COCKERELL, T. D. A. *Seymouria marginicollis*. <Garden and Forest, 5 May, 1897, p. 179.
175. COCKERELL, T. D. A. Notes on scale insects. <Calif. Fruit Grower, 8 May, 5 June, 3 July, 25 September, 1897.
Notes on predaceous Coccinellids.
176. COCKERELL, T. D. A. Forbes' scale (*Aspidiotus forbesi*) in Mesilla. <S. W. Farm and Orchard, May, 1897, p. 5.
177. COCKERELL, T. D. A. Contributions to coccidology—II. <Amer. Nat., July, 1897, p. 588-592.
178. COCKERELL, T. D. A. The codlin moth. <Garden and Forest, 25 August, 1897, p. 336.

179. COCKERELL, T. D. A. The green scale of coffee. <Garden and Forest, 1 September, 1897, p. 347.
Note on *Lecanium viride* Green.
180. COCKERELL, T. D. A. An experience with Paris green. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, p. 25.
The poison absorbed by a peach tree.
181. COCKERELL, T. D. A. The San Jose scale and its nearest allies. <Bull. No. 6, Tech. Ser., Div. Ent., U. S. Dept. Agric., 1897, pp. 31, 15 figs.
Means of distinguishing it from other species.
182. COCKERELL, T. D. A. The codlin moth. <S. W. Farm, Orchard and Stockman, January, 1898, pp. 3-5.
183. COCKERELL, T. D. A. Preliminary notes on the codling moth. <Bull. No. 25, N. Mex. Agric. Exp. Sta., February, 1898, pp. 47-68.
Habits of and remedies for *Carpocapsa pomonella*.
184. COCKERELL, T. D. A. Some observations on Mr. Barlow's bill, now before Congress, to provide rules and regulations governing the importation and inspection of nursery stock. <S. W. Farm and Orchard, March, 1898, pp. 10-11.
<Calif. Fruit Grower, 12 March, 1898, p. 198.
185. COCKERELL, T. D. A. Importation of fruit trees, etc. <Calif. Fruit Grower, 12 March, 1898.
A consideration of proposed legislation.
186. COCKERELL, T. D. A. The San Jose scale. <Entom. News, April, 1898, pp. 95-96.
187. COCKERELL, T. D. A. Quarantine against injurious insects. <Entom. News, May, 1898, pp. 119-120.
188. COCKERELL, T. D. A. Injurious insects. <Bull. No. 2, Agric. and Hortic., N. Mex. Bur. Immigration, June, 1898, pp. 10-11.
189. COCKERELL, T. D. A. Some notes on the entomology of Prunus. <Bull. No. 27, N. Mex. Agric. Exp. Sta., June, 1898, pp. 132-134.
Fertilization of plums by flies and bees, and *Anthonomus quadrigibbus*, *Clisiocampa fragilis*, and *Coleophora* sp. on wild cherry.
190. COCKERELL, T. D. A. Grasshoppers in New Mexico. <Entom. News, February, 1899, p. 43.
191. COCKERELL, T. D. A. *Megetra vittata* injuring sugar-beets. <Entom. News, February, 1899, p. 44.
192. COCKERELL, T. D. A. Some insect pests of Salt River Valley and the remedies for them. <Bull. No. 32, Ariz. Agric. Exp. Sta., December, 1899, pp. 273-295.
Treats chiefly of fruit insects.

193. COCKERELL, T. D. A., and QUAINANCE, A. L. A new species of Coccidæ of the genus *Lecaniodiaspis*. <Entom. News, September, 1897, pp. 161-163, 1 pl.
Lecaniodiaspis tessellatus on hickory.
194. COLEMAN, H. M. Sulphur blower and other topics. <Pacific Rural Press, 7 January, 1899, 1 fig.
An apparatus to blow sulphur upon red spiders.
195. CONNAWAY, J. W. Texas fever or acclimation fever. <Bull. No. 37, Mo. Agric. Exp. Sta., January, 1897, pp. 81-139, 11 figs.
Confirmation of the tick theory of transmission, experiments and remedies.
196. COOK, A. J. Our lady birds. <Calif. Cultivator, August, 1897.
General article on ladybirds, with references to the Chrysopas and ground beetles also.
197. COOK, A. J. The prune beetle. <Calif. Cultivator and Poultry-Keeper, July, 1898, p. 214.
Notes on *Serica fimbriata* and *S. mixta*.
198. COOK, A. J. A new pest of the grape. <Calif. Cultivator, June, 1899, pp. 214-215.
Treats of *Nysius angustatus*.
199. COOK, A. J. The bean weevil. <Calif. Cultivator, July, 1899, p. 254.
200. COOK, A. J. Ants—an interesting nuisance; how to get rid of them. <Amer. Bee Journal, 22 June, 1899, p. 386. <Pacific Rural Press, 15 July, 1899.
201. COOK, C. B. Canker worms. <Farm, Field and Fireside, 10 April, 1897, 1 fig.
202. COOLEY, R. A. Notes on some Massachusetts Coccidæ. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 61-65.
Treats of a number of common species.
203. COQUILLETT, D. W. The walnut span-worm. <Bull. No. 7, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 64-66, 2 figs.
Life history of *Boarmia plumigeraria*.
204. COQUILLETT, D. W. On the habits of the Oscinidæ and Agromyzidæ reared at the United States Department of Agriculture. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 70-79.
205. COQUILLETT, D. W. A Cecidomyiid injurious to seeds of sorghum. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 81-82.
Description and habits of *Diplosis sorghicola*.
206. CORDLEY, A. B. Insects of the prune. <Bull. No. 45, Oreg. Agric. Exp. Sta., June, 1897, pp. 99-127, 13 figs.
Habits of and remedies against several species.

207. CORDLEY, A. B. Notes on *Anarsia lineatella* Zell. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 71-75.
Two forms or species under this name.
208. CORDLEY, A. B. A disease of the San Jose scale. <Oreg. Agric. and Rural Northwest, 15 November, 1897, p. 70.
209. CORDLEY, A. B. The hop aphid. <Oreg. Agric. and Rural Northwest, 1 December, 1897, p. 86.
210. CORDLEY, A. B. The bud moth. <Oreg. Agric. and Rural Northwest, 15 December, 1897, p. 102, 4 figs.
211. CORDLEY, A. B. The Hessian fly. <Oreg. Agric. and Rural Northwest, 1 January, 1898, p. 118.
212. CORDLEY, A. B. Spraying. <Bull. No. 48, Oreg. Agric. Exp. Sta., January, 1898, pp. 19, 2 figs.
Directions for preparation and use of insecticides.
213. CORDLEY, A. B. Spraying for codling-moth. <Oreg. Agric. and Rural Northwest, 1 February, 1898, p. 151.
214. CORDLEY, A. B. The prune twig borer. <Oreg. Agric. and Rural Northwest, 15 March, 1898, p. 197.
Treats of *Anarsia lineatella*.
215. CORDLEY, A. B. The time to spray for hop lice. <Oreg. Agric. and Rural Northwest, 1 August, 1898, p. 343.
216. CORDLEY, A. B. Some prune pests. <Rept. State Bd. Hortic. Oreg. f. 1897-98 (1899), pp. 417-432.
Notes on San Jose scale and peach borer.
217. CORDLEY, A. B. A new injurious insect. <Oreg. Agric. and Rural Northwest, 15 June, 1899, p. 292.
Deals with *Thricolepis inornata*.
218. CRAIG, J. The San Jose scale. <Farmers' Advocate, 21 June, 1897, p. 278.
219. CRAIG, J. Injury by the San Jose scale. <Farmers' Advocate, 5 May, 1898, p. 202-203.
220. CRAIG, J. Bordeaux mixture as an insecticide. <Country Gentleman, 2 June, 1898, p. 433.
221. CRAIG, J. Plum aphid. <Prairie Farmer, 2 September, 1899.
222. CRAW, A. Injurious insect pests found on trees and plants from foreign countries. <5th Bien. Rept. Calif. State Bd. Hortic., 1895-96 (1897), pp. 33-52, 3 pls.
A descriptive list, mostly of scale insects.
223. CRAW, A. Entomology and quarantine. <5th Bien. Rept. Calif. State Bd. Hortic., 1895-96 (1897), pp. 127-135.
Results of his work for the past two years.
224. CRAW, A. Fruit tree borers. <Calif. Fruit Grower, No. 1, 1897, p. 4.
Notes on *Sannina exitiosa*, *Aegeria tipuliformis*, and *Chrysobothris femorata*.

225. CRAW, A. Control of the codlin moth. <Pacific Rural Press, 14 August, 1897, p. 101.
226. CRAW, A. A dangerous pest, *Caliroa (Selandria) obscletum*. <Calif. Fruit Grower, 25 December, 1897. <Pacific Rural Press, 25 December, 1897, p. 402.
227. CRAW, A. [From Quarantine Officer Craw.] <Pacific Rural Press, 12 February, 1898, p. 99.
Criticism of the proposed national quarantine bill.
228. CRAW, A. Orange peel worms and Mexican orange maggots. <Pacific Rural Press, 23 April, 1898, pp. 261-262.
Habits of orange-peel worm in California; name not known.
229. CRAW, A. Review of the proposed national horticultural quarantine law. <Calif. Fruit Grower, 25 May, 1898, pp. 4-5.
230. CRAW, A. Our new possessions and necessary horticultural legislation. <Pacific Rural Press, 10 December, 1898.
Relates to the possible introduction of injurious species.
231. CRAW, A. Danger in imported insect pests. <Calif. Fruit Grower, 31 December, 1898, p. 4.
232. CRAW, A. Entomology and quarantine. <Prelim. Rept. (Sixth Bien.) State Bd. Hortic. Calif. 1897-98 (1899), pp. 97-107.
Notes on many scale insects.
233. CRAW, A. New scale insects that have been quarantined. <Prelim. Rept. (Sixth Bien.) State Bd. Hortic. Calif. 1897-98 (1899), pp. 107-114.
A long list of species, with notes thereon.
234. CRAW, A. Our new possessions and necessary horticultural legislation. <Prelim. Rept. (Sixth Bien.) State Bd. Hortic. Calif. 1897-98 (1899), pp. 115-118.
235. CRAW, A. Necessary horticultural legislation. <Rept. State Bd. Hortic. Oreg. f. 1897-98 (1899), pp. 258-261.
236. CRAW, A. Inspection of nursery stock and orchards. <Pacific Rural Press, 29 July, 1899.
237. CRAWFORD, C. G. Some enemies of the orchard. <Virginia Agric. Rept. f. 1897, pp. 188-192.
Notes on San Jose scale.
238. CROSBY, H. M. A San Jose scale remedy. <Colman's Rural World, 10 March, 1898, p. 75.
239. CURTICE, C. Texas fever. <So. Planter, March, 1897, pp. 116-117.
240. CURTISS, F. The presence of the codling moth. <Denver Field and Farm, 10 June, 1899.

241. DALRYMPLE, W. H., H. A. MORGAN, and W. R. DODSON. Cattle tick and Texas fever. <Bull. No. 51, La. Agric. Exp. Sta., 1898, pp. 230-282, 2 figs., 6 pls.
Detailed account of many experiments.
242. DALZIEL, J. The elm beetle. <Pop. Sci. News, May, 1897, 3 figs.
A general account of the insect.
243. DALZIEL, J. The Buffalo beetle. <Pop. Sci. News, June, 1897, 1 fig.
244. DARTT, E. H. S. San Jose scale. <Farm, Stock and Home, 15 April, 1897.
245. DAVIS, F. P. White ants. <Amer. Florist, 17 December, 1898, 1 fig.
Damage to chrysanthemums.
246. DAVIS, G. C. Report of the consulting entomologist. <35th Ann. Rept. Mich. State Bd. Agric., f. 1896 (1897), pp. 135-138.
Notes on mushroom insects, *Adimonia cavicollis*, *Nysius angustatus*, grasshoppers, and Hessian fly.
247. DAVIS, G. C. Pests of house and ornamental plants. <Spec. Bull. No. 2, Mich. Agric. Exp. Sta., November, 1896 (1897), pp. 44, 34 figs.
Treats of a great many insects.
248. DEARNESS, J. Some injurious insects. <27th Ann. Rept. Ent. Soc. Ontario, f. 1896 (1897), pp. 23-24, 4 figs.
249. DEARNESS, J. The cotton boll-worm in Canadian corn. <29th Ann. Rept. Ent. Soc. Ontario, 1898 (1899), pp. 64-65.
250. DINWIDDIE, R. R. Methods of combating communicable diseases of farm animals. <Bull. No. 51, Ark. Agric. Exp. Sta., May, 1898, pp. 35-46.
Deals with methods of killing Texas cattle tick.
251. DOANE, R. W. A few facts about insects. <Bull. No. 27, Wash. Agric. Exp. Sta., January, 1897, pp. 52, 69 figs.
General article.
252. DOANE, R. W. A new Trypetid of economic importance. <Entom. News, March, 1898, pp. 69-72.
Description and habits of *Rhagoletis ribicola*, which injures currants and gooseberries in Washington.
253. DOANE, R. W. Insects and diseases affecting the prune. <Bull. No. 38, Wash. Agric. Exp. Sta., May, 1899, pp. 37-44.
Deals with *Aspidiotus perniciosus*, *Tetranychus telarius*, *Aphis prunifoliae*, *Conotrachelus nenuphar*, and *Coccotorus prunicida*.
DOANE, R. W. See PIPER, C. V., and DOANE, R. W.
254. DODGE, G. M. Concerning flies. <Colman's Rural World, 14 September, 1899.
Experience with *Tabanus tectus*, *Hæmatobia serrata*, and *Stomoxys calcitrans*.

255. DOTY, J. S. Bean weevils. <Wisconsin Agric., 29 December, 1898.
256. DUNLAP, H. M. Why, when, and how to spray. <Trans. Ill. State Hortic. Soc. f. 1899, pp. 319-322.
257. EARLE, F. S. Orchard notes. <Bull. No. 106, Ala. Agric. Exp. Sta., November, 1899, pp. 163-176.
Notes on *Aphis mali* and *Aspidiotus perniciosus*.
258. EHRHORN, E. M. Leaf-eating caterpillars. <Calif. Fruit Grower, 23 January, 1897, p. 4.
Notes on several species.
259. EHRHORN, E. M. Peach moth. <Pacific Rural Press, 26 February, 1898, p. 133.
Treats of *Anarsia lineatella*.
260. EHRHORN, E. M. Pests and diseases. <Pac. Tree and Vine, 30 April, 1898.
Notes on canker worms, cutworms, peach borer, codling moth, and insecticides.
261. EHRHORN, E. M. The California tussock moth (*Orgyia gulosus*). <Pacific Rural Press, 29 October, 1898, 1 fig.
262. EHRHORN, E. M. The crown borer of the peach. <Pacific Rural Press, 24 December, 1898, p. 413.
263. EMORY, R. S. Experiences with the San Jose scale. <Trans. Penin. Hortic. Soc., February, 1898, pp. 107-113. <Nat. Nurseryman, 1898, pp. 26-27.
264. EVANS, J. D. Notes on the insects of the year. <Division No. 2, Bay of Quinte District, 29th Ann. Rept. Ent. Soc. Ontario, 1898 (1899), p. 90.
265. EVANS, W. M. Chinch bug. <So. Planter, March, 1897, p. 127.
266. FAVILLE, E. E. A common pest. <The Industrialist, 29 November, 1897, 2 figs.
Treats of *Leptocoris trivittata*.
267. FAVILLE, E. E. Cigar case-bearer. <The Industrialist, April, 1898, pp. 271-275, 7 figs.
Treats of *Coleophora fletcherella*.
268. FAVILLE, E. E. The fringed-wing apple-bud moth. <Press Bull. No. 3, Kans. Agric. Exp. Sta., August, 1898, pp. 2.
Account of *Nothris maligemmella*.
269. FAVILLE, E. E. The peach-twigg borer. <Press Bull. No. 9, Kans. Agric. Exp. Sta., September, 1898, pp. 2.
Account of *Anarsia lineatella*.
270. FAVILLE, E. E. The fruit-tree bark-beetle. <Press Bull. No. 14, Kans. Agric. Exp. Sta., November, 1898, pp. 2.
Account of *Scolytus rugulosus*.

271. FAVILLE, E. E. The potato-stalk weevil. <Press Bull. No. 19, Kans. Agric. Exp. Sta., December, 1898, pp. 2.
Account of *Trichobaris trinotata*.
272. FAVILLE, E. E. Insecticides and fungicides. <Trans. Kans. State Hortic. Soc., 1898, pp. 90-94.
273. FAVILLE, E. E. The spring canker-worm. <Press Bull. No. 23, Kans. Agric. Exp. Sta., January, 1899, pp. 3.
Account of *Puleacrita vernata*.
274. FAVILLE, E. E., and P. J. PARROTT. Some insects injurious to the orchard. <Bull. No. 77, Kans. Agric. Exp. Sta., March, 1898, pp. 25-62, 32 figs.
Notes on a number of species.
275. FAVILLE, E. E., and P. J. PARROTT. The potato-stalk weevil. <Bull. No. 82, Kans. Agric. Exp. Sta., January, 1899, pp. 12, 15 figs.
Treats of *Trichobaris trinotata*.
276. FELT, E. P. Corn-root worm. <Country Gentleman, 10 February, 1898, p. 107.
Note on *Diabrotica 12-punctata*.
277. FELT, E. P. Kerosene emulsion. <Country Gentleman, 17 February, 1898, p. 126.
278. FELT, E. P. Scurvy bark-louse. <Country Gentleman, 17 February, 1898, p. 127.
279. FELT, E. P. A very different bug. <Country Gentleman, 3 March, 1898, p. 166.
Concerning the carpet beetle, *Anthrenus scrophulariæ*.
280. FELT, E. P. Two bad insects. <Country Gentleman, 17 March, 1898, p. 206.
Notes on San Jose scale and oyster-shell bark-louse.
281. FELT, E. P. Codling moth. <Country Gentleman, 24 March, 1898, p. 226.
282. FELT, E. P. Bees injuring grapes. <Country Gentleman, 24 March, 1898, p. 226.
283. FELT, E. P. Not San Jose. <Country Gentleman, 24 March, 1898, p. 226.
Specimens were *Schizoneura lanigera*.
284. FELT, E. P. Aphids in greenhouse. <Country Gentleman, 31 March, 1898, p. 247.
Remedies against them.
285. FELT, E. P. Eel worms in clover. <Country Gentleman, 7 April, 1898, p. 266.
286. FELT, E. P. It is San Jose. <Country Gentleman, 14 April, 1898, p. 286.
From Woodstown, N. J.

287. FELT, E. P. Probably not efficient. <Country Gentleman, 14 April, 1898, p. 286.
Lime, salt, and sulphur wash for San Jose scale.
288. FELT, E. P. Bag or basket worm. <Country Gentleman, 21 April, 1898, p. 307.
289. FELT, E. P. Codling moth. <Country Gentleman, 26 May, 1898, p. 406.
290. FELT, E. P. The punctured clover-leaf weevil. <Country Gentleman, 26 May, 1898, p. 406.
291. FELT, E. P. Apple-tree bark louse. <Country Gentleman, 9 June, 1898, p. 454.
292. FELT, E. P. Certain destructive scale insects. <Country Gentleman, 9 June, 1898, pp. 453-454, 2 figs.
Treats chiefly of San Jose scale.
293. FELT, E. P. To destroy ant hills. <Country Gentleman, 9 June, 1898, p. 446.
294. FELT, E. P. Forest tent caterpillar. <Country Gentleman, 9 June, 1898, p. 450.
Ravages and abundance of *Clisiocampa disstria*.
295. FELT, E. P. Cutworms. <Country Gentleman, 16 June, 1898, p. 470.
296. FELT, E. P. Black ants. <Country Gentleman, 16 June, 1898, p. 470.
297. FELT, E. P. Cherry-leaf beetle. <Country Gentleman, 16 June, 1898, p. 471.
Note on *Galerucella caricollis*.
298. FELT, E. P. The brown apricot scale. <Country Gentleman, 16 June, 1898, p. 474.
Treats of *Lecanium armeniacum*.
299. FELT, E. P. Insects on honeysuckle. <Country Gentleman, 23 June, 1898, p. 490.
Plant lice reduced by *Adalia bipunctata*.
300. FELT, E. P. Pests—Virginia creeper. <Country Gentleman, 23 June, 1898, p. 490.
Note on the apple aphid, *A. mali*.
301. FELT, E. P. Maples defoliated. <Country Gentleman, 23 June, 1898, p. 491.
Note on *Xylina antennata*.
302. FELT, E. P. Elm-leaf beetle. <Country Gentleman, 30 June, 1898, p. 513.
303. FELT, E. P. The harlequin cabbage bug. <Country Gentleman, 30 June, 1898, p. 513.

304. FELT, E. P. Pear-leaf blister-mite. <Country Gentleman, 7 July, 1898, p. 526.
305. FELT, E. P. Fleas and how to kill them. <Country Gentleman, 7 July, 1898, p. 537.
306. FELT, E. P. Cucumber beetle—cabbage worms. <Country Gentleman, 14 July, 1898, p. 546.
Notes on *Diabrotica vittata* and *Pieris rapæ*.
307. FELT, E. P. Destructive rose bug. <Country Gentleman, 14 July, 1898, p. 546.
Concerning *Macroductylus subspinosus*.
308. FELT, E. P. The Hessian fly in Pennsylvania. <Country Gentleman, 14 July, 1898, p. 547.
309. FELT, E. P. Forest tent caterpillar. <Country Gentleman, 14 July, 1898, p. 551.
Serious injury by *Clisiocampa disstria*.
310. FELT, E. P. Forest tent caterpillar. <Country Gentleman, 21 July, 1898, p. 567.
311. FELT, E. P. Work of the oak pruner. <Country Gentleman, 21 July, 1898, p. 573.
312. FELT, E. P. Zebra caterpillar. <Country Gentleman, 28 July, 1898, p. 586.
Abundance of *Mamestra picta*.
313. FELT, E. P. Nursery and orchard inspection. <Country Gentleman, 28 July, 1898, p. 586.
314. FELT, E. P. Brown patches on the lawn. <Amer. Gardening, 30 July, 1898, p. 549.
Remedies for white grubs.
315. FELT, E. P. Asparagus beetle in Albany County. <Country Gentleman, 4 August, 1898, p. 614.
316. FELT, E. P. Maple-tree scale. <Country Gentleman, 11 August, 1898, p. 630.
Note on *Pulvinaria innumerabilis*.
317. FELT, E. P. A walking stick. <Country Gentleman, 18 August, 1898, p. 647.
318. FELT, E. P. The apple-tree tent-caterpillar. <Country Gentleman, 18 August, 1898, p. 653.
319. FELT, E. P. Asparagus beetles. <Country Gentleman, 1 September, 1898, p. 693, 1 fig.
Notes on both species of *Crioceris*.
320. FELT, E. P. Killing insects through plant roots. <Country Gentleman, 1 September, 1898, p. 694.
321. FELT, E. P. The plague of flies. <Country Gentleman, 8 September, 1898, p. 712.
Note on *Hæmatobia serrata*.

322. FELT, E. P. Insects on chrysanthemums. <Amer. Gardening, 10 September, 1898, p. 639.
Note on *Lygus pratensis* and *Triphleps insidiosus*.
323. FELT, E. P. A katydid. <Country Gentleman, 15 September, 1898, p. 726.
Eggs of *Microcentrum laurifolium*.
324. FELT, E. P. Ponds and mosquitoes. <Country Gentlemen, 6 October, 1898, p. 794.
Use of kerosene against mosquitoes.
325. FELT, E. P. Preventives of insect depredations. <Country Gentleman, 13 October, 1898, pp. 813-814.
326. FELT, E. P. Attacked by joint-worms. <Country Gentleman, 13 October, 1898, p. 814.
Damage to wheat by *Isosoma*.
327. FELT, E. P. Scale on magnolia and *Euonymus*. <Amer. Gardening, 29 October, 1898, p. 742.
Notes on *Lecanium tulipiferae* and *Chionaspis euonymi*.
328. FELT, E. P. Beneficial bugs. <Country Gentleman, 3 November, 1898, p. 868.
Note on wheel bug and masked bedbug hunter.
329. FELT, E. P. A pernicious elm borer. <Country Gentleman, 3 November, 1898, p. 869.
Note on *Saperda tridentata*.
330. FELT, E. P. Look out for canker worms. <Country Gentleman, 10 November, 1898, p. 813, 1 fig.
Notes on *Erannis tiliaria*.
331. FELT, E. P. Hessian fly. <Country Gentleman, 17 November, 1898, p. 906.
332. FELT, E. P. Elm borer. <Country Gentleman, 17 November, 1898, p. 906.
Note on *Saperda tridentata*.
333. FELT, E. P. Grape vine leaf-beetle. <Country Gentleman, 17 November, 1898, p. 913.
Specimens of *Typhlocyba comes*.
334. FELT, E. P. Exterminating potato bugs. <Country Gentleman, 17 November, 1898, pp. 913-914.
335. FELT, E. P. Notes on some of the insects of the year in the State of New York. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 16-33. Abstract <Country Gentleman, 1 September, 1898, p. 690.
Notes on various species, especially on the elm-leaf beetle.
336. FELT, E. P. Bean weevil. <Country Gentleman, 8 December, 1898, p. 966.
337. FELT, E. P. Carbon bisulfid. <Country Gentleman, 8 December, 1898, p. 966.

338. FELT, E. P. Insects from lily pond. <Amer. Gardening, 10 December, 1898, p. 842.
Injury probably by caddice fly.
339. FELT, E. P. Everlasting San Jose scale. <Country Gentleman, 15 December, 1898, p. 993.
340. FELT, E. P. A destructive borer. <Country Gentleman, 15 December, 1898, p. 993.
Notes on *Agrilus anxius* injuring birches.
341. FELT, E. P. Fourteenth report on the injurious and other insects of the State of New York. <Bull. N. Y. State Mus. Nat. Hist., Vol. V, No. 23, December, 1898, pp. 153-295, 20 figs., 9 pls.
Treats of *Byturus unicolor*, *Trypeta canadensis*, *Notolophus leucostigma*, *Clisiocampa americana*, *Clisiocampa disstria*, *Mamestra picta*, *Xylina antennata*, *Lecanium tulipiferæ*, *Lepisma domestica*, *Eurypelma hentzi*, insecticides, San Jose scale, and elm-leaf beetle.
342. FELT, E. P. Insects injurious to forest trees. <Fourth Ann. Rept. Comm. Fish, Game, and Forests of the State of New York, 1898, pp. 31, 11 figs., 3 plates.
Accounts of *Notolophus leucostigma*, *Clisiocampa disstria*, *Zeuzera pyrina*, *Sesia aceris*, *Plagionotus speciosus*, *Elaphidion villosum*, and *Pulvinaria innumera-bilis*.
343. FELT, E. P. Elm leaf-beetle in New York State. <Bull. N. Y. State Mus. Nat. Hist., No. 20, 1898, pp. 43, 6 pls.
A full account of the insect.
344. FELT, E. P. Spray barrel on wheels. <Country Gentleman, 12 January, 1899, p. 26.
345. FELT, E. P. Squash, melon, and cucumber bugs. <Country Gentleman, 16 February, 1899, p. 128.
Notes on *Anasa tristis*, *Mellitia ceto*, *Margaronia nitidalis*, *M. hyalinata*, *Diabrotica vittata*, *Epilachna borealis*, *Epitrix cucumeris*, and *Aphis gossypii*.
346. FELT, E. P. Arsenical poisons. <Country Gentleman, 16 February, 1899, p. 128.
Recommends use of arsenate of lead.
347. FELT, E. P. Injurious insects of the Hudson River Valley. <Rural New Yorker, 18 March, 1899, p. 198.
348. FELT, E. P. Box elder plant bug. <American Gardening, 29 April, 1899, p. 321.
349. FELT, E. P. Myriapods and mites. <American Gardening, 29 April, 1899, p. 321.
350. FELT, E. P. Scale on Japan quince. <American Gardening, 15 April, 1899, p. 284.
Note on *Chionaspis furfurus*.
351. FELT, E. P. Ants. <Country Gentleman, 4 May, 1899, p. 346.

352. FELT, E. P. Curious insect tastes. <Country Gentleman, 11 May, 1899, p. 368.
Notes on *Attagenus piceus*, *Lepisma domestica*, and *Lasioderma serricornue*.
353. FELT, E. P. Forest tent caterpillar. <Country Gentleman, 11 May, 1899, p. 367.
354. FELT, E. P. Cutworms on carnations. <Country Gentleman, 11 May, 1899, p. 368.
Determined as *Peridromia saucia*.
355. FELT, E. P. Look out for caterpillars. <Country Gentleman, 11 May, 1899, p. 368.
Remedies for tent caterpillars.
356. FELT, E. P. Pests on fruit trees. <Country Gentleman, 25 May, 1899, p. 406.
Notes on *Cacæcia rosaceana*, *Tmetocera ocellana*, *Myzus cerasi*, and *Adalia bipunctata*.
357. FELT, E. P. Bark louse and Phytoptus. <Country Gentleman, 1 June, 1899, p. 430.
Note on *Mytilaspis pomorum* and *Phytoptus quadripes*.
358. FELT, E. P. Plant lice. <Country Gentleman, 1 June, 1899, p. 430.
Aphis rumicis on *Euonymus*.
359. FELT, E. P. Entomology. <Country Gentleman, 8 June, 1899, pp. 448-449.
Notes on forest tent caterpillar, apple tent caterpillar, cutworms, and arsenate of lead.
360. FELT, E. P. Forest tent caterpillar. <Country Gentleman, 15 June, 1899, p. 474.
361. FELT, E. P. Bordeaux mixture. <Country Gentleman, 15 June, 1899, p. 470.
362. FELT, E. P. Tent caterpillars. <Country Gentleman, 15 June, 1899, p. 470.
363. FELT, E. P. Galls on maple leaves. <Country Gentleman, 22 June, 1899, p. 486.
Note on *Phytoptus quadripes*.
364. FELT, E. P. Blister beetles. <Country Gentleman, 6 July, 1899, p. 526.
Notes on *Epicauta vittata* and *Macrobasis unicolor*.
365. FELT, E. P. The coxcomb elm gall. <Rural New Yorker, 18 July, 1899, p. 497.
Note on *Colopha ulmicola*.
366. FELT, E. P. The fall web-worm. <Country Gentleman, 27 July, 1899, p. 593.
367. FELT, E. P. The Hessian fly. <Country Gentleman, 10 August, 1899, pp. 628-629.

368. FELT, E. P. Spined soldier bug. <Country Gentleman, 10 August, 1899, p. 626, 1 fig.
Note on *Podisus spinosus*.
369. FELT, E. P. Squash bug. <Country Gentleman, 10 August, 1899, p. 626.
Note on *Anasa tristis*.
370. FELT, E. P. Striped blister beetle. <Country Gentleman, 10 August, 1899, p. 626, 1 fig.
Note on *Epicauta vittata*.
371. FELT, E. P. Turnip pest. <Country Gentleman, 17 August, 1899, p. 646.
Note on web caterpillar.
372. FELT, E. P. Elm leaf beetle. <Country Gentleman, 17 August, 1899, p. 646.
373. FELT, E. P. Rose pest. <Country Gentleman, 17 August, 1899, p. 646.
Note on *Homoptera lunata*.
374. FELT, E. P. Lilac caterpillar. <Country Gentleman, 24 August, 1899, p. 673.
Note on *Attacus promethea*.
375. FELT, E. P. Worms in mushroom beds. <Country Gentleman, 24 August, 1899, p. 666.
Larvæ of *Sciara*.
376. FELT, E. P. Bark louse. <Country Gentleman, 7 September, 1899, p. 706.
Note on *Chionaspis furfurus*.
377. FELT, E. P. Notes of the year for New York. <Country Gentleman, 14 September, 1899, p. 733.
Notes on *Clisiocampa disstria*, *Cicada septendecim*, *Galerucella luteola*, *Systema frontalis*, *Crioceris asparagi*, and *C. 12-punctata*.
378. FELT, E. P. Willow caterpillar. <Country Gentleman, 21 September, 1899, p. 746.
Note on *Euranessa antiopa*.
379. FELT, E. P. Strawberry insects. <Country Gentleman, 21 September, 1899, p. 746.
White grubs in the beds.
380. FELT, E. P. Controlling insect pests. <Country Gentleman, 28 September, 1899, p. 767.
381. FELT, E. P. Potato scab and insects. <Country Gentleman, 28 September, 1899, p. 766.
Notes on myriapods and wireworms.
382. FELT, E. P. Katydid eggs. <Country Gentleman, 5 October, 1899, p. 786.
Eggs of *Microcentrum retinervis*.

383. FELT, E. P. The white-lined Sphinx. <Country Gentleman, 5 October, 1899, p. 792.
Account of *Deilephila lineata*.
384. FELT, E. P. The horse guard identified. <Country Gentleman, 9 November, 1899, p. 896, 1 fig.
Notes on *Monedula carolina*.
385. FELT, E. P. Paint *vs.* borers. <Country Gentleman, 16 November, 1899, p. 917.
Use of paint against *Saperda* and *Chrysobothris*.
386. FELT, E. P. Substitute for Paris green. <Country Gentleman, 23 November, 1899, p. 931.
Notes on paragrene, laurel green, green arsenite, and white arsenic.
387. FELT, E. P. Voluntary entomologic service in New York State. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 39-43.
388. FELT, E. P. Notes of the year for New York. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 60-62.
389. FERNALD, C. H. Report of the Entomologist. <Rept. Mass. Bd. Agric. f. 1896 (1897), pp. 360-364, 1 pl.
On the gypsy moth.
390. FERNALD, C. H. Report of the Entomologist. <Ninth Ann. Rept. Hatch Exp. Sta., Mass., January, 1897, pp. 85-87.
Notes on *Chermes abietis*, *Diastictis ribearia*, and *Planchonia quercicola*.
391. FERNALD, C. H. Report of the Entomologist. <Tenth Ann. Rept. Mass. Exp. Sta., January, 1898, pp. 102-105.
Notes on San Jose scale, army worm, plant lice, *Carneades messoria*.
392. FERNALD, C. H. Report of the Entomologist. <Rept. State Bd. Agric. (Mass.) on extermination of the gypsy moth, January, 1898, pp. 17-20.
393. FERNALD, C. H. Arsenate of lead as an insecticide. <Rept. State Bd. Agric. (Mass.) on extermination of the gypsy moth, January, 1898, pp. 53-56.
394. FERNALD, C. H. The brown-tail moth. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 24-32.
General account of *Euproctis chrysorrhæa*.
395. FERNALD, C. H. Insects injurious to the cranberry and other fruits. <Rept. State Bd. Agric. Mass. f. 1898, pp. 144-162.
Notes on *Leucania unipuncta*, *Rhopobota vacciniana*, *Mineola vaccinii*, *Ematurga faxonii*, *Eupithecia implicata*, *Cecidomyia vaccinii*, *Crambus hortellus*, *Carneades detersa*, *Aphis mali*, *Schizoneura lanigera*, and *Aspidiotus perniciosus*.
396. FERNALD, C. H. Report of the Entomologist. <11th Ann. Rept. Hatch Exp. Sta. Mass., January, 1899, pp. 102-104.
Notes on *Aspidiotus perniciosus*, *Phytonomus nigrirostris*, *Anthrenus scrophulariæ*, and the grass Thrips.

397. FERNALD, C. H., and A. H. KIRKLAND. The brown-tail moth. <Spec. Bull. Hatch Exp. Sta. Mass., July, 1897, pp. 15, 1 fig., 3 pls. <Reprint, Mass. Bd. Agric., Bull. Information, March, 1898.
Treats of *Euproctis chrysorrhæa*.
398. FERNALD, H. T. Insects to be treated now by fruit growers. The apple worm and plum curculio. <Farmers' Circular No. 2, Pa. Dept. Agric., May, 1898.
Brief accounts.
399. FERNALD, H. T. Spraying and how to spray. <Farmers' Circular No. 3, Pa. Dept. Agric., July, 1898.
400. FERNALD, H. T. The Hessian fly in wheat. <Pa. Dept. Agric., Div. Zool., 1890; circular.
Brief account.
401. FERNALD, H. T. How to make spray mixtures. <Pa. Dept. Agric., 1898; circular.
Brief directions.
402. FERNALD, H. T. Report of the economic zoologist. <Bull. No. 41, Dept. Agric. Pa., February, 1899, pp. 106-113.
Brief notes on the damage by various insects.
403. FERNALD, H. T. The San Jose scale and other scale insects. <Bull. No. 43, Dept. Agric. Pa., March, 1899.
Besides *Aspidiotus perniciosus*, it treats of *A. ancyllus*, *A. juglans-regiæ*, *Diaspis lanatus*, *D. rosæ*, *Mytilaspis pomorum*, *Chionaspis furfuris*, and *Lecanium persicæ*.
404. FERNALD, H. T. Methods for the protection of crops from insects and fungi. <Bull. No. 49, Dept. Agric. Pa., June, 1899, pp. 20.
An elaborate spraying calendar.
405. FERNALD, H. T. Some harmful household insects. <Bull. No. 45, Dept. Agric. Pa., July, 1899, pp. 13, figs. 2.
Notes on *Anthrenus scrophulariæ*, *Attagenus piceus*, *Tinea pellionella*, *T. biselliella*, *Trichophaga tapetzella*, *Periplaneta orientalis*, *Ectobia germanica*, and ants.
406. FERNALD, H. T. Some insects injurious to wheat. <Bull. No. 46, Dept. Agric. Pa., July, 1899, pp. 24, 7 figs.
Notes on *Cecidomyia destructor*, *Disposia tritici*, *Meromyza americana*, *Isosoma hordei*, *Cephus pygmaeus*, *Leucania unipuncta*, *Siphonophora avenæ*, *Sitotroga cerealella*, *Calandra granaria*, and wireworms.
407. FERNALD, H. T. Some insects attacking fruit and fruit-trees. <Bull. No. 47, Dept. Agric. Pa., July, 1899, pp. 19, 5 figs.
Deals with *Carpocapsa pomonella*, *Clisiocampa americana*, *Platysamia cecropia*, *Saperda candida*, *Sannina exitiosa*, *Anarsia lineatella*, and *Conotrachelus nenuphar*.

408. FERNALD, H. T. Common cabbage insects. <Bull. No. 48, Dept. Agric. Pa., July, 1899, pp. 14, 3 figs.
Deals with *Pieris rapæ*, *Mamestra picta*, *Phorbia brassica*, and *Murgantia histrionica*.
409. FIFIELD, O. E. The need of nursery inspection laws. <Rept. Mich. State Hortic. Soc. f. 1897 (1898), pp. 150-155.
410. FISHER, J. Hydrocyanic acid as an insecticide. <Amer. Gardening, 1898, p. 741.
Against greenhouse insects.
411. FISHER, J. Hydrocyanic acid gas; a reply. <Amer. Gardening, 26 November, 1898.
412. FISHER, T. R. The migration of locusts. <Sci. American, 29 April, 1899, p. 265.
413. FLAGG, C. O., and FIELD, G. W. The army worm in Rhode Island. <9th Ann. Rept. R. I. Agric. Exp. Sta., f. 1896 (1897), pp. 319-326, 1 fig.
414. FLETCHER, J. Insect injuries to Ontario crops in 1896. <27th Ann. Rept. Entom. Soc. Ontario, f. 1896 (1897), pp. 58-69, figs. 13.
Brief notes on various common insects.
415. FLETCHER, J. Report of the entomologist and botanist. <Rept. Exptl. Farms Canada f. 1896 (1897), pp. 226-276, 18 figs. 1 pl.
Notes on *Cecidomyia destructor*, *Isosoma hordei*, *Siphonophora arenae*, *Hadena arctica*, *Cephus pygmaeus*, *Leucania unipuncta*, *Hylesinus trifolii*, *Eriopeltis festucae*, grasshoppers, white grubs, *Phyllotreta vittata*, *Entomoscelis adonidis*, *Diabrotica vittata*, *Mamestra trifolii*, *M. picta*, *Pieris rapæ*, *Doryphora 10-lineata*, *Carneades ochrogaster*, *Carpocapsa pomonella*, *Tmetocera ocellana*, *Coleophora fletcherella*, *Mytilaspis pomorum*, *Eriocampa cerasi*, *Lyda rufipes*, *Aspidiotus perniciosus*, *Conotrachelus nenuphar*, *Phyllocera vastatrix*, *Phlebotribus liminaris*, *Aphis persicæ-niger*, *Trypeta pomonella*, and *Hæmatobia serrata*.
416. FLETCHER, J. Insects injurious to farm crops in Canada, 1896. <Farmers' Advocate, 5 January, 1897, p. 17.
417. FLETCHER, J. The San Jose scale. <28th Ann. Rept. Entom. Soc. Ontario, f. 1897 (1898), pp. 78-86, 4 figs.
General account.
418. FLETCHER, J. Report of the entomologist and botanist. <Experimental Farms Report (Canada) for 1897 (1898), pp. 187-221, 87 figs.
Treats of a large number of insects, principally injurious to fruit and grains.
419. FLETCHER, J. Injurious insects in 1898. <29th Ann. Rept. Entom. Soc. Ontario, 1898 (1899), pp. 75-87, 12 figs.
Notes on various insects.
420. FLETCHER, J. The brown-tail moth. <29th Ann. Rept. Entom. Soc. Ontario, 1898 (1899), pp. 72-74.

421. FLETCHER, J. Report of the entomologist and botanist. <Rept. Exptl. Farms Canada f. 1898 (1899), pp. 167-212, 24 figs.
Accounts of many species: *Diplosis tritici*, *Meromyza americana*, *Oscinis carbonaria*, *Isosoma tritici*, *Siphonophora avenæ*, *Cephus pygmaeus*, cutworms, *Caloptenus spretus*, *Semasia nigricana*, *Bruchus pisorum*, *B. obtectus*, *Psila rosæ*, *Aphis brassicæ*, *Phorbia brassicæ*, *Pæcilocapsus lineatus*, *Argyresthia conjugella*, *Grapholitha prunivora*, *Clisiocampa distria*, *C. americana*, *Conotrachelus nenuphar*, *Xylina grotei*, *Aspidiotus perniciosus*, *Aphis mali*, *Xylocerius agassizii*, and spraying.
422. FLETCHER, J. The Rocky Mountain locust. <Farmers' Advocate, 5 October, 1898, p. 446.
423. FORBES, S. A. The San Jose scale in Illinois. <Bull. No. 48, Ill. Agric. Exp. Sta., April, 1897, pp. 413-428, 2 figs.
Distribution in the State.
424. FORBES, S. A. Circular notice concerning the San Jose scale and other fruit insects. <Urbana, Ill., July, 1897, pp. 4.
425. FORBES, S. A. Strawberry leaf-roller. <Prairie Farmer, 10 July, 1897.
426. FORBES, S. A. San Jose scale in Illinois. <Farm, Field and Fireside, 31 July, 1897, pp. 1044-1045.
427. FORBES, S. A. The San Jose scale. <Farming, July, 1897, pp. 718-722, 2 figs.
428. FORBES, S. A. The season's campaign against the San Jose scale and other scale insects in Illinois. <Trans. Ill. State Hortic. Soc. f. 1897, pp. 103-119.
Report of experiments and inspections.
429. FORBES, S. A. Twentieth report of the State entomologist on the noxious and beneficial insects of the State of Illinois. <Springfield, 1898, pp. 112.
Notes on San Jose scale, white grubs, chinch bugs, bacterial diseases of chinch bug, diseases of army worm, and *Odapnerus foraminatus*.
430. FORBES, S. A. San Jose scale warning. <Colman's Rural World, 10 February, 1898, p. 43.
431. FORBES, S. A. San Jose scale—Warning to Illinoisans. <Farm, Field and Fireside, 12 February, 1898, pp. 198-199.
432. FORBES, S. A. The San Jose scale. <Gentleman Farmer Magazine, May, 1898, pp. 409-414, 7 figs.
433. FORBES, S. A. The seventeen year Cicada. <Prairie Farmer, 25 June, 1898, p. 9.
434. FORBES, S. A. Lessons from the year's work with the San Jose scale. <Trans. Ill. State Hortic. Soc. f. 1898, pp. 50-61.
435. FORBES, S. A. Recent work on the San Jose scale in Illinois. <Bull. No. 56, Ill. Agric. Exp. Sta., July, 1899, pp. 241-283, 4 pls.
New localities, inspection, methods of treatment, and fungous infection.

436. FORBES, S. A. The workings of the San Jose scale law.
 <Trans. Ill. State Hortic. Soc. f. 1899, pp. 150-159.
437. FORBUSH, E. H. Field director's report. <Rept. Mass. Bd.
 Agric. f. 1896 (1897), pp. 365-396, 3 pls.
 Work against the gypsy moth.
438. FORBUSH, E. H. Field director's report. <Rept. State Bd.
 Agric. (Mass.) on extermination of the gypsy moth, Jan-
 uary, 1898, pp. 21-50, 3 pls.
439. FORBUSH, E. H. Recent work of the gypsy-moth committee.
 <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., Nov.,
 1898, pp. 78-80.
440. FORBUSH, E. H. The gypsy moth. <29th Ann. Rept. Entom.
 Soc. Ontario, 1898 (1899), pp. 62-63.
441. FORBUSH, E. H. The destruction of hairy caterpillars by birds.
 <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November,
 1899, pp. 85-93. <Mass. Crop Rept., September, 1899, pp.
 28-40.
442. FORBUSH, E. H. Recent work against the gypsy moth. <Bull.
 No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899,
 pp. 104-107.
443. FRANCIS, M. V. The screw worm. <Texas Stockman and
 Farmer, 27 October, 1897, pp. 14-15.
444. "FURNINST LOCUSTS." Seventeen year locusts. <Ohio Farmer,
 22 July, 1897, p. 52.
 Destroying nursery stock; not eaten by the English sparrow.
445. FYLES, T. W. The importance of entomological studies to an
 agricultural and fruit-growing community. <27th Ann.
 Rept. Entom. Soc. Ontario, f. 1896 (1897), pp. 37-41, 3 figs.
446. FYLES, T. W. Lepidopterous pests of the meadow and the lawn.
 <27th Ann. Rept. Entom. Soc. Ontario, f. 1896 (1897), pp.
 97-104, 5 figs.
447. FYLES, T. W. The farmer's garden and its insect foes. <29th
 Ann. Rept. Entom. Soc. Ontario, 1898 (1899), pp. 40-47, 10
 figs.
 Notes on many species.
448. GALLOWAY, B. T. Injury to violet leaves. <American Gar-
 dening, 21 August, 1897, p. 585, 1 fig.
 Work of undetermined sawfly.
449. GARMAN, H. Notes on tobacco worms, from observations made
 in 1896. <Bull. No. 66, Ky. Agric. Exp. Sta., February,
 1897, pp. 6-32, 4 pls. <12th Bien. Rept. Bur. Agric. Ky.,
 1897, pp. 228-237.
 Treats of *Phlegethontius carolina* and *P. celeus* and their parasites, *Apanteles*
congregatus and *Trichogramma pretiosa*.

450. GARMAN, H. Notes on several tobacco insects and two imperfectly known diseases. <Bull. No. 66, Ky. Agric. Exp. Sta., February, 1897, pp. 33-39. <12th Bien. Rept. Bur. Agric. Ky., 1897, pp. 238-240.
Notes on *Euschistus variolarius* and *Heliothis rhexia*.
451. GARMAN, H. The San Jose scale in Kentucky. <Bull. No. 67, Ky. Agric. Exp. Sta., May, 1897, pp. 43-59, 3 figs. <12th Bien. Rept. Bur. Agric. Ky., 1897, pp. 221-227.
Distribution of scale in the State.
452. GARMAN, H. Insects which attack the leaves of the black locust trees in Kentucky. <12th Bien. Rept. Bur. Agric. Ky., 1897, pp. 216-220, 2 figs.
Notes on *Odontota dorsalis*, *Gracilaria robiniella*, *Lithocolletis ostensackenella*, *L. robiniella*, *Gelechia pseudacaciella*, *Eudamus tityrus*, *Cecidomyia robiniae*, *Orgyia leucostigma*, and insectivorous birds.
453. GARMAN, H. The chinch bug.—Earthworms a source of gapes in poultry. <Bull. No. 74, Ky. Agric. Exp. Sta., May, 1898, pp. 45-73, 10 figs.
455. GARMAN, H. Some pests likely to be disseminated from nurseries. <Bull. No. 80, Ky. Agric. Exp. Sta., May, 1899, pp. 201-265, 9 figs.
Treats of a number of insects.
456. GARMAN, H. The nursery inspection law. <Bull. No. 80, Ky. Agric. Exp. Sta., May, 1899, pp. 266-273.
Workings of the law in Kentucky.
457. GARMAN, H. The elms and their diseases. <Bull. No. 84, Ky. Agric. Exp. Sta., November, 1899, pp. 55-75, 13 pls.
Treats of *Galerucella luteola*, *Canarsia ulmiarrosorella*, *Hylesinus opaculus*, *Magdalis armicollis*, and *Saperda tridentata*.
458. GILLETTE, C. P. Sheep scab. <Bull. No. 38, Colo. Agric. Exp. Sta., April, 1897, pp. 3-32, 1 fig.
459. GILLETTE, C. P. A few insect enemies. <Bull. No. 38, Colo. Agric. Exp. Sta., April, 1897, pp. 33-40, 3 figs.
Notes *Aspidiotus perniciosus*, *A. ancylus*, *A. howardi*, *Lecanium persicæ*, *Bryobia pratensis*, and *Carpocapsa pomonella*.
460. GILLETTE, C. P. A new and troublesome insect. <Denver Field and Farm, 19 June, 1897.
Notes on *Haltica foliacea*.
461. GILLETTE, C. P. A successful lantern trap. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 75-76, 1 fig.
462. GILLETTE, C. P. Oviposition in young forest trees by *Tetrapes femoratus* Fab. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 76-77.

463. GILLETTE, C. P. A few insects that have been unusually abundant in Colorado this year. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 77-79.
Notes on *Anarsia lineatella*, *Haltica punctipennis*, and plant lice.
464. GILLETTE, C. P. The codling moth—results of recent investigations. <Ann. Rept. State Bd. Hortie. Colo., 1897 (1898), pp. 59-62.
465. GILLETTE, C. P. Notes on injurious insects. <10th. Ann. Rept. Colo. Agric. Exp. Sta., January, 1898, pp. 56-61.
Notes on *Anarsia lineatella*, *Phloxopteris comptana*, *Prionoxystus robiniae*, *Aphis mali*, *Hyalopterus pruni*, *Schizoneura lanigera*, *Pulvinaria innumerabilis*, *Murgantia histrionica*, and *Ephestia kühniella*.
466. GILLETTE, C. P. Colorado's worst insect pests and their remedies. <Bull. No. 47, Colo. Agric. Exp. Sta., July, 1898, pp. 64, 52 figs.
Brief treatment of a number of insects.
467. GILLETTE, C. P. *Allorhina nitida* as a fruit pest. <Entom. News, February, 1899, p. 43.
468. GILLETTE, C. P. The sugar-beet caterpillar. <Special Press Bull. Colo. Agric. Exp. Sta., August, 1899.
Account of damage by *Laphygma flavimaculata*.
469. GOFF, E. S. Methods of improving the efficiency of spraying apparatus. <15th Ann. Rept. Wis. Agric. Exp. Sta., 1898, pp. 239-249.
470. GOFF, E. S. Spraying the currant. <Country Gentleman, 15 December, 1898.
471. GOULD, H. P. Notes on spraying and on the San Jose scale. <Bull. No. 144, Cornell Agric. Exp. Sta., January, 1898, pp. 579-592, 1 pl.
472. GOULD, H. P. Second report on the San Jose scale, with remarks on the effects of kerosene on foliage. <Bull. No. 155, Cornell Agric. Exp. Sta., December, 1898, pp. 161-171, 3 figs.
473. GREEN, S. B. Canker worms. <Farm and Fireside, 1 September, 1898, 1 fig.
474. GREEN, W. J., SELBY, A. D., and WEBSTER, F. M. Seed and soil treatment and spray calendar. <Bull. No. 102, Ohio Agric. Exp. Sta., April, 1899.
475. GREINER, T. Tobacco dust as an insecticide. <Denver Field and Farm, 26 June, 1897.
476. GREINER, T. The onion maggot. <Practical Farmer, 2 September, 1899, p. 134.
477. GREINER, T. Black squash bug. <The Practical Farmer, 16 September, 1899, p. 166.

478. GRIFFIN, H. H. Results of experiments at the San Juan substation. <Bull. No. 21, N. Mex. Agric. Exp. Sta., January, 1897, pp. 13-16.
Notes on *Anasa tristis*, *Epilachna corrupta*, *Doryphora 10-lineata*, and tomato worm.
479. GRIMSHAW, P. H. Mosquitoes and malaria. <Sci. Amer. Supp., 6 May, 1899, pp. 19533-19534.
480. GROFF, G. G. The San Jose scale in Pennsylvania. <Ann. Rept. Dept. Agric. Pa. f. 1896 (1897), pp. 514-531, 2 pls.
481. HALL, F. H. A peculiar insect enemy of the apple. <Popular Ed. Bull. No. 122, N. Y. Agric. Exp. Sta., April, 1897, pp. 5, 8 figs.
Treats of the pistol case-bearer, *Coleophora malivorella*.
482. HALL, G. P. Spray vs. sulphur for mites. <Pacific Rural Press, 21 January, 1899.
483. HALLADAY, A. A. Tomato disease and enemies. <Amer. Agriculturist, 1898, p. 622.
484. HALLOCK, N. San Jose scale on Long Island. <Rural New Yorker, 8 October, 1898.
485. HARBISON, L. J. Do the mites go to the ground and back to the tree? <Pacific Rural Press, 23 September, 1899.
About red spiders.
486. HARNEY, G. W. Scale on Marysville orange trees. <Pacific Rural Press, 23 December, 1899, p. 406.
487. HARRINGTON, W. H. Some beetles occurring upon beech. <27th Ann. Rept. Entom. Soc. Ontario, f. 1896 (1897), pp. 69-75, 7 figs.
List of many species.
488. HARRINGTON, W. H. Notes on the insects of the year 1897. <28th Ann. Rept. Entom. Soc. Ontario, f. 1897 (1898), pp. 30-31, 3 figs.
Notes on *Clisiocampa americana*.
489. HARRINGTON, W. H. Notes on insects of the year. Division No. 1, Ottawa District. <29th Ann. Rept. Entom. Soc. Ontario, 1898 (1899), pp. 87-89, 6 figs.
490. HARVEY, F. L. Notes on the insects of the year. <12th Ann. Rept. Maine Agric. Exp. Sta., f. 1896 (1897), pp. 117-121, 1 pl.
Notes on *Mytilaspis pomorum*, *Datana ministra*, *Tolyte velleda*, *Trypeta pomonella*, *Ptinus fur*, *Clisiocampa americana*, *Epochra canadensis*, *Diastictis ribearia*, *Dakruma convolutella*, and *Eristalis* larva.
491. HARVEY, F. L. A new garden Smynthurid, *Smynthurus albamaculata*. <12th Ann. Rept. Maine Agric. Exp. Sta., f. 1896 (1897), pp. 124-126, 1 pl.

492. HARVEY, F. L. Notes on insects of the year. <13th Ann. Rept. Maine Agric. Exp. Sta., f. 1897 (1898), pp. 173-178, 1 pl.
Notes on *Mamestra picta*, *Gortyna nitela*, tent caterpillars, *Sciara inconstans*, *Typophorus canellus*, *Trypeta pomonella*, and *Dendroctonus rufipennis*.
493. HARVEY, F. L. Injurious millipedes. <14th Ann. Rept. Maine Agric. Exp. Sta., 1898 (1899), pp. 118-121, 1 pl.
Notes on *Polydesmus monilaris*, *Julus hortensis*, *J. virgatus*, *Parajulus immaculatus*, and *Orthomorpha gracilis*.
494. HARVEY, F. L. An injurious caddice fly. <14th Ann. Rept. Maine Agric. Exp. Sta., f. 1898 (1899), pp. 122-124, 3 figs.
Probably a *Limnephilus*.
495. HARVEY, F. L. Insects of the year. <14th Ann. Rept. Maine Agric. Exp. Sta., f. 1898 (1899), pp. 125-130.
Brief notes on a number of species.
496. HARVEY, F. L., and MUNSON, W. M. Apple insects of Maine. <Bull. No. 56, Maine Agric. Exp. Sta., December, 1899, pp. 107-114, 8 pls.
General account, with descriptions of the various stages of each species.
497. HAYES, A. H. The brown apricot scale. <Country Gentleman, 30 June, 1898, p. 514.
498. HEDRICK, U. P. Nurseries and orchard inspection. <Rept. Mich. State Hortic. Soc. f. 1897 (1898), pp. 147-150.
499. HEDRICK, U. P. Codling moth. <Bull. No. 64, Utah Agric. Exp. Sta., December, 1899, pp. 31-34, 2 pls.
A general account of *Carpocapsa pomonella*.
500. HEDRICK, U. P. A wasp that destroys the apple worm. <Bull. No. 64, Utah Agric. Exp. Sta., December, 1899, pp. 35-38, 5 pls.
Ammophila pruinosa destroying the larvæ of *Carpocapsa pomonella*.
501. HERRICK, G. W. Some insects injurious to stock and remedies therefor. <Bull. No. 53, Miss. Agric. Exp. Sta., March, 1899, pp. 8.
Notes on *Hæmatobia serrata*, *Simulium pecuarum*, *Gastrophilus equi*, *Comptosia macellaria*, *Estrus oris*, and *Hypoderma bovis*.
502. HILLMAN, F. H. Some common injurious insects of western Nevada. <Bull. No. 36, Nev. Agric. Exp. Sta., December, 1897 (March, 1898), pp. 39.
Treats of a number of common insects, and remedies for them.
503. HINE, J. S. *Sciara inconstans*—reared from carnations. <Entom. News, September, 1899, pp. 201-202, 6 figs.
504. HINKLEY, M. E. Insect pests. <Trans. Iowa Hortic. Soc., 1898, pp. 375-376.
Notes on spraying.
505. [HODGES, C. F.] Bats and codling moth. <Country Gentleman, 6 January, 1898, p. 11.

506. HOLDER, C. F. Insect migration. <Sci. Amer., 1 April, 1899, p. 996, 1 fig.
Grasshoppers in the West.
507. HOLLAND, W. J. Concerning ticks. <Can. Entom., April, 1898, pp. 96-97.
508. HOPKINS, A. D. Preliminary report on the insect enemies of forests in the Northwest. <Bull. No. 21, n. s., Div. Ent., U. S. Dept. Agric., December, 1899, pp. 27.
Notes on the habits of many forest insects.
509. HOPKINS, A. D. The San Jose or pernicious scale. <W. Va. Farm Reporter, 1897, pp. 84-86.
510. HOPKINS, A. D. Entomology and the entomologist as related to horticulture and the horticulturist. <W. Va. Farm Reporter, December, 1897, pp. 411-413.
511. HOPKINS, A. D. The periodical cicada in West Virginia. <Bull. No. 50, W. Va. Agric. Exp. Sta., January, 1898, pp. 46, 23 figs., 1 map.
Treats also of damage by tree crickets and woolly aphis.
512. HOPKINS, A. D. On the history and habits of the "wood engraver" ambrosia beetle, *Xyleborus xylographicus* Say, (*Xyleborus satreseni* Ratz.), with brief descriptions of different stages. <Can. Entom., February, 1898, pp. 21-29, 2 pls.
513. HOPKINS, A. D. Insect enemies of the locust tree. <W. Va. Farm Review, March, 1898, pp. 88-93, 6 figs.
Notes on *Odontota dorsalis*, *O. nervosa*, *Cyllene robiniae*, and *Prionoxystus robiniae*.
514. HOPKINS, A. D. The San Jose scale in West Virginia. <W. Va. Farm Review, April, 1898, pp. 124-127.
515. HOPKINS, A. D. Some notes on observations in West Virginia. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 44-49.
Short notices of various species.
516. HOPKINS, A. D. Insects detrimental and destructive to timber products. <Proc. 19th Ann. Meet. Soc. Prom. Agric. Sci., 1898, pp. 103-108.
Treats of *Scolytus 4-spinosus*, *Dendroctonus frontalis*, *Melanophila fulvoguttata*, *Agrilus bilineatus*, *Lymexylon sericeum*, *Eupsalis minuta*, *Corthybus columbianus*, *Lyctus striatus*, and *Phlynatodes variabilis*.
517. HOPKINS, A. D. Report of the entomologist. <11th Ann. Rept. W. Va. Agric. Exp. Sta., 1898, pp. 32-40.
Summary of year's work.
518. HOPKINS, A. D. Present outlook of the San Jose scale problem. <W. Va. Farm Reporter, April, 1899, pp. 76-79.

519. HOPKINS, A. D. Report on investigations to determine the cause of unhealthy conditions of the spruce and pine from 1880 to 1893. <Bull. No. 56, W. Va. Agric. Exp. Sta., April, 1899, pp. 197-461, 99 figs.
Treats of damage by many forest insects.
520. HOPKINS, A. D. White grub. <W. Va. Farm Review, August, 1899.
521. HOWARD, L. O. The use of steam apparatus for spraying. <Yearbook U. S. Dept. Agric. f. 1896 (1897), pp. 69-88, 15 figs., 2 pls.
An account of the apparatus used for this purpose.
522. HOWARD, L. O. Some insects affecting the hop plant. <Bull. No. 7, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 40-51, 4 figs.
Treats of *Hydraecia immanis*, *Hyppena humuli*, *Polygonia interrogatoris*, and *P. comma*.
523. HOWARD, L. O. A case of excessive parasitism. <Bull. No. 7, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 62-63.
Parasites of *Lecanium fletcheri*, and description of *Coccophagus fletcheri* n. sp.
524. HOWARD, L. O. A leaf miner on tobacco. <Bull. No. 7, n. s., Div. Ent., U. S. Dept. Agric., 1897, p. 76.
Note on *Gelechia piscipellis*.
525. HOWARD, L. O. A gall-making coccid in America. <Bull. No. 7, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 76-77, 1 fig.
Notes on *Olliffiella cristata*.
526. HOWARD, L. O. Damage by the white pine butterfly. <Bull. No. 7, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 77-78.
Note on an outbreak of *Neophasia menapia*.
527. HOWARD, L. O. Meal worms in soda ash. <Bull. No. 7, n. s., Div. Ent., U. S. Dept. Agric., 1897, p. 81.
Note on *Tenebrio obscurus*.
528. HOWARD, L. O. Australian and New Zealand Coccidæ. <Bull. No. 7, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 81-82.
Brief notes on several species.
529. HOWARD, L. O. Two apple insects liable to importation. <Bull. No. 7, n. s., Div. Ent., U. S. Dept. Agric., 1897, p. 82.
Mention of *Cacæcia responsana* and *C. excessana*.
530. HOWARD, L. O. A new direct benefit from insects. <Bull. No. 7, n. s., Div. Ent., U. S. Dept. Agric., 1897, p. 82.
Rearing of spiders for use in wine cellars.
531. HOWARD, L. O. Notes from correspondence. <Bull. No. 7, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 84-87.
Short notes on a number of insects.

532. HOWARD, L. O. Additional observations on the parasites of *Orgyia leucostigma*. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 5-18.
533. HOWARD, L. O. Temperature experiments as affecting received ideas on the hibernation of injurious insects. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 18-19.
Experiment of cold storage company.
534. HOWARD, L. O. A useful American scale insect. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 38-40.
Notes on *Cerococcus quercus*.
535. HOWARD, L. O. The Mexican cotton-boll weevil. <Cir. No. 18, s. s., Div. Ent., U. S. Dept. Agric., March, 1897, pp. 8, 5 figs. Also German and Spanish editions.
A revision of No. 14.
536. HOWARD, L. O. A study in insect parasitism. <Bull. No. 5, Tech. Ser., Div. Ent., U. S. Dept. Agric., April, 1897, pp. 57, 24 figs.
A consideration of the parasites of *Orgyia leucostigma*.
537. HOWARD, L. O. The injurious insects of 1896 and the prospects for 1897. <Gentleman Farmer, May, 1897, pp. 389-396, 12 figs.
538. HOWARD, L. O. The desirability of an inspection system against foreign insects. <Proc. Natl. Conv. for the repression of insect pests and plant diseases by legislation. U. S. Dept. Agric., August, 1897, pp. 11-12.
539. HOWARD, L. O. The gipsy moth in America. <Bull. No. 11, n. s., Div. Ent., U. S. Dept. Agric., December, 1897, pp. 39, 8 figs.
A summary account of the introduction and spread of *Porthetria dispar* in Massachusetts and of the efforts made by the State to repress and exterminate it.
540. HOWARD, L. O. Mosquitoes and fleas. <Cir. No. 13, s. s., Div. Ent., U. S. Dept. Agric. Revised edition, December, 1897, pp. 4.
541. HOWARD, L. O. Report of the entomologist for 1897. <Rept. Secr. Agric. f. 1897 (December, 1897), pp. 111-116.
542. HOWARD, L. O. A new parasite of the harlequin cabbage bug. <Can. Entom., January, 1898, pp. 17-18.
543. HOWARD, L. O. The Mexican cotton-boll weevil in 1897. <Cir. No. 27, s. s., Div. Ent., U. S. Dept. Agric., January, 1898, pp. 7.
Progress of *Anthonomus grandis*.
544. HOWARD, L. O. On some parasites of Coccidæ; with description of two new genera of Aphelininæ. <Proc. Ent. Soc. Wash., IV, February, 1897, pp. 133-139.

545. HOWARD, L. O. The box-elder plant bug. <Cir. No. 28, s. s., Div. Ent., U. S. Dept. Agric., February, 1898, pp. 3, 1 fig.
Treats of *Leptocoris trivittata*.
546. HOWARD, L. O. The San Jose scale in 1896-1897. <Bull. No. 12, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 31, 1 map.
A detailed account supplementary to Bulletin No. 3.
547. HOWARD, L. O. Recent laws against injurious insects in North America, together with the laws relative to foul-brood. <Bull. No. 13, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 68.
Text of the various enactments.
548. HOWARD, L. O. The fig-eater, or green June beetle. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 20-26, 1 fig.
Account of *Allorhina nitida*.
549. HOWARD, L. O. Further notes on the house fly. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 63-65.
Experiments in killing the larvæ.
550. HOWARD, L. O. A peculiar damage to the apple. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 87-88, 1 fig.
Damage by an unknown Tineid larva.
551. HOWARD, L. O. Another lead-boring insect. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 88-89.
Damage by a species of *Lyctus*.
552. HOWARD, L. O. *Icerya purchasi* in Portugal and the Azores. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 89-90.
Occurrence of the insect in that country.
553. HOWARD, L. O. Injury by the western flea-beetle, *Phyllotreta pusilla* Horn. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 92-93.
Damage to corn, cabbage, and other vegetables.
554. HOWARD, L. O. The windrow remedy for blister beetles. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, p. 93.
555. HOWARD, L. O. White grubs of *Allorhina nitida* invading a cellar. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 93-94.
556. HOWARD, L. O. Reported damage by the green plant-bug, *Lioderma uhleri* Stal. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, p. 94.
Injurious to wheat, oats, and other field crops.

557. HOWARD, L. O. Food plants of the "cotton-stainer." <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 95-96.
558. HOWARD, L. O. Collecting locust eggs in Morocco. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, p. 96.
559. HOWARD, L. O. Poisoning grasshoppers in Natal. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 96-97.
Methods used in that country.
560. HOWARD, L. O. Collecting grasshoppers in New Hampshire. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, p. 97.
Results of State law for ten years.
561. HOWARD, L. O. Notes from correspondence. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 97-99.
Notes on many insects.
562. HOWARD, L. O. A new egg parasite of the periodical cicada. <Can. Entom., April, 1899, pp. 102-103.
563. HOWARD, L. O. Work of the Division of Entomology. <Year-book U. S. Dept. Agric. f. 1897 (May, 1898), pp. 84-89.
564. HOWARD, L. O. Danger of importing insect pests. <Year-book U. S. Dept. Agric. f. 1897 (May, 1898), pp. 529-552, 19 figs.
Treats of various foreign insects which may be introduced into this country.
565. HOWARD, L. O. Remedial work against the Mexican cotton-boll weevil. <Cir. No. 33, s. s., Div. Ent., U. S. Dept. Agric., July, 1898, pp. 6.
Methods of combating *Anthonomus grandis*.
566. HOWARD, L. O. Two beneficial insects introduced from Europe. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 13-16, 2 figs.
Notes on *Scutellista cyanea* and *Habrolepis dalmani*.
567. HOWARD, L. O. Notes on house flies and mosquitoes. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 55-56.
Remedies for these pests.
568. HOWARD, L. O. *Pulvinaria acericola* (W. & R.) and *P. innumerabilis* Rathv. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 57-58, 1 fig.
Showing them to be distinct species.
569. HOWARD, L. O. The San Jose scale on dried fruit. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 7-13.
An account of experiments in drying infested fruit.

570. HOWARD, L. O. The work against *Icerya purchasi* in Portugal, with an account of the introduction of *Noctus cardinalis*. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 30-35.
571. HOWARD, L. O. Cotton field insects. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 85-88.
Long list of species taken in trap lantern.
572. HOWARD, L. O. The introduction of beneficial ladybirds from Australia into India. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 89-90.
An account of the various attempts.
573. HOWARD, L. O. The sugar-cane borers of the Mascarene Islands. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, p. 90.
574. HOWARD, L. O. An invasion of the larger digger wasp. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, p. 92.
Note on *Megastizus speciosus*.
575. HOWARD, L. O. Recent injury by the sugar-cane beetle and related species. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 92-93.
Damage by *Ligyris rugiceps* and *L. gibbosus*.
576. HOWARD, L. O. A new enemy to the grapevine in Mexico. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, p. 93.
Note on *Heterachthes xneolus*.
577. HOWARD, L. O. Westward spread of the common asparagus beetle. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 93-94.
Note on *Crioceris asparagi*.
578. HOWARD, L. O. An interesting case of myiasis. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, p. 97.
579. HOWARD, L. O. The European bat-bug in America. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, p. 97.
Note on *Acanthia pipistrelli*.
580. HOWARD, L. O. A radical novelty in chinch bug work. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 97-98.
Chinch bugs on lawns in Brooklyn, N. Y.
581. HOWARD, L. O. Poisoned potato slices for *Oniscus*. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 98-99.
582. HOWARD, L. O. Notes from correspondence. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 99-101.
Short notes on many species.
583. HOWARD, L. O. The economic status of insects as a class. <Science, 17 February, 1899, pp. 234-247. <Sci. Amer. Supp., March, 1899, pp. 1209-1210.

584. HOWARD, L. O. The principal insects affecting the tobacco plant. <Yearbook U. S. Dept. Agric. f. 1898 (May, 1899), pp. 120-150, 25 figs.
Detailed account of the various species known to injure tobacco.
585. HOWARD, L. O. The extermination of the mosquito. <Sci. Amer. Supp., 3 June, 1899, p. 19593.
Regarding the so-called permanganate of potash remedy.
586. HOWARD, L. O. Pests of the hop crop. <Hop Industry, Orange Judd Co., New York, 1899, pp. 113-141, 19 figs.
Accounts of the species known to affect hops.
587. HOWARD, L. O. Wheat-head army worm. <Southern Planter, August, 1899.
588. HOWARD, L. O. A remedy for gadflies: Porchinski's recent discovery in Russia, with some American observations. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 24-28.
589. HOWARD, L. O. The present status of the caprifig experiments in California. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 28-35.
A résumé of the subject.
590. HOWARD, L. O. Report of the entomologist for 1899. <Rept. Secr. Agric. 1899, pp. 43-52, December, 1899.
591. HOWARD, L. O., and MARLATT, C. L. The original home of the San Jose scale. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 36-39.
A consideration of the evidence as to origin of the scale.
592. HOYT, M. A. Killing peach tree borers. <Colman's Rural World, 8 July, 1897, p. 211.
Using hot water.
593. HUBBARD, H. G. The ambrosia beetles of the United States. <Bull. No. 7, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 9-30, 34 figs. <Yearbook U. S. Dept. Agric. f. 1896 (1897), pp. 421-430.
The life history of certain Scolytidæ.
594. HUBBARD, H. G., and PERGANDE, THEO. A new coccid on birch. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 13-26, 8 figs.
Description and life history of *Nylococcus betulæ*.
595. HUNTER, S. J. The more destructive grasshoppers of Kansas. <Bull. Dept. Entom. Univ. Kans., October, 1897, pp. 11, pls. 4.
Treats of a number of species, with remedies.
596. HUNTER, S. J. Guard against San Jose scale. <Kansas Farmer, 9 December, 1897.

597. HUNTER, S. J. Scale insects injurious to orchards. <Bull. Dept. Entom. Univ. Kans., January, 1898, pp. 62, 7 figs.
Treats of *Aspidiotus perniciosus*, *A. forbesi*, *Mytilaspis pomorum*, and legislation.
598. HUNTER, S. J. The economic importance of San Jose scale. <Kansas Farmer, 24 February, 1898.
599. HUNTER, S. J. Notes on injurious insects. <Trans. Kans. Acad. Sci., 1895-96 (April, 1898), pp. 50-53.
Notes on *Leucania unipuncta*, *L. albilinea*, *Clisiocampa sylvatica*, *Anisopteryx vernata*, *Oncideres cingulatus*, and *Blissus leucopterus*.
600. HUNTER, S. J. Parasitic influences on Melanoplus. <Kans. Univ. Quarterly, October, 1898, pp. 205-210.
601. HUNTER, S. J. The nurseryman and the entomologist <Proc. 24th Meet. Amer. Assoc. Nurserymen, 1899, pp. 28-34.
602. HUNTER, S. J. Alfalfa, grasshoppers, bees; their relationships. <Bull. Dept. Entom. Univ. Kans., June, 1899, pp. 164, pls. 12, figs. 59.
603. HUNTER, W. D. Report on entomology. <11th Ann. Rept. Nebr. Agric. Exp. Sta., January, 1898, pp. xxvji-xxx.
Notes on carbon bisulphide and disease of grasshoppers.
604. HUNTER, W. D. Destructive locusts in 1897. <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 40-53.
An account of the distribution and abundance of the various species observed.
605. HUNTER, W. D. The San Jose scale insect. <Ann. Rept. Nebr. State Hortic. Soc. f. 1898, pp. 122-130.
606. HUNTER, W. D. Insecticides. <Ann. Rept. Nebr. State Bd. Agric. f. 1898 (1899), pp. 72-77.
607. HUNTER, W. D. A list of insects known to feed upon clovers (*Trifolium*, *Medicago*, *Melilotus*, *Lespedeza*). <Ann. Rept. Nebr. State Bd. Agric. f. 1898 (1899), pp. 240-285, 67 figs.
608. HUNTER, W. D. The fall army worm or grass worm. <Univ. Nebr. Press Bull., Cir., Ser. No. 2, September, 1899, 4 pp., 2 figs.
Treats of *Laphygma frugiperda*.
609. HUSMANN, G. Vine hopper remedy theories. <Calif. Fruit Grower, 24 July, 1897, p. 4.
Value of sheep in vineyard in fall.
610. HUSMANN, G. [On the San Jose scale.] <Colman's Rural World, 5 May, 1898, p. 139.
611. HUSSEY, L. San Jose scale; successful treatment. <Ohio Farmer, 17 June, 1897, p. 487.
Used a thick whitewash of quicklime.

612. HUTT, H. L. A few of the most troublesome insects of the past season (1898). <29th Ann. Rept. Entom. Soc. Ontario, 1898 (1899), pp. 93-100, 5 figs.
613. ISAAC, J. Truth about San Jose scale. <Amer. Agriculturist, 26 February, 1898, p. 252.
614. ISAAC, J. An effective San Jose spray. <Amer. Agriculturist, 12 March, 1898, p. 322.
The lime, salt, and sulphur solution.
615. JACK, J. G. An enemy of narcissus and amaryllis. <Garden and Forest, 21 April, 1897, pp. 154-156, 1 fig.
Treats of *Merodon equestris*.
616. JACK, J. G. A willow pest. <Garden and Forest, 6 October, 1897, p. 394, 1 fig.
Notes on *Cryptorhynchus lapathi*.
617. JACKSON, J. F. Dangerous insects. <Southern Planter, July, 1897, p. 303.
Legislation against the San Jose, greedy, West Indian, gloomy, scurvy, oyster-shell, Euonymus, plum, and peach scales in North Carolina.
618. JACKSON, J. F. San Jose scale. <Southern Planter, November, 1897, p. 494.
Its occurrence in North Carolina.
619. JACOBSEN, N. A. A natural enemy of the codlin moth. <Oreg. Agric. and Rural Northwest, 1 October, 1897, p. 21.
620. JACOBSEN, N. A. Best time to apply lime, sulphur, and salt wash. <Oreg. Agric. and Rural Northwest, 1 September, 1898, p. 371.
621. JOHNSON, C. W. Some of the injurious insects of Pennsylvania. <Ann. Rept. Pa. Dept. Agric. f. 1896 (1897), pp. 345-364, 1 pl.
Treats of a number of insects.
622. JOHNSON, W. G. Destructive insects and methods for controlling them. <Amer. Gardening, 1897, No. I, 2 January, p. 2; II, 10 January, p. 37, 1 fig.; III, 13 March, p. 174, 1 fig.; IV, 17 April, p. 275, 1 fig.; V, 1 May, p. 317, 1 fig.; VI, 22 May, p. 375, 2 figs.; VII, 26 June, p. 455, 1 fig.; VIII, 28 August, p. 601, 1 fig.
623. JOHNSON, W. G. Some common injurious plant lice, with suggestions for their destruction. <Bull. No. 48, Md. Agr. Exp. Sta., June, 1897, pp. 89-101.
Notes on *Aphis gossypii*, *A. brassicæ*, *A. persicæ-niger*, and *Myzus cerasi*.
624. JOHNSON, W. G. Notes on some little-known insects of economic importance. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 83-85.
Notes on *Hydræcia marginidens*, *Pyrausta ferrugalis*, *Uranotes melinus*, *Cerotoma trifurcata*, *Crumbus caliginosellus*, *Tribolium madens*, and *Aspidiotus forbesi*.

625. JOHNSON, W. G. Notes from Maryland on the principal injurious insects of the year. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 80-82.
Brief notes on many common species.
626. JOHNSON, W. G. The peach tree borer. <Amer. Gardening, 1897, p. 275, 1 fig.
627. JOHNSON, W. G. Notes on the Morelos orange fruit-worm. <Proc. Entom. Soc. Wash., Vol. IV, No. 2 (March, 1898), pp. 53-57.
628. JOHNSON, W. G. Notes on the external characters of the San Jose scale, cherry scale, and Putnam's scale. <Can. Entom., April, 1898, pp. 82-83.
Remarks on *Aspidiotus perniciosus*, *A. forbesi*, and *A. ancyllus*.
629. JOHNSON, W. G. Some insects affecting the tomato. <The Ruralist, April, 1898.
Notes on flea-beetle and tomato worm *Sphinx*.
630. JOHNSON, W. G. The black peach aphid—cutworms in young tobacco—law providing for the suppression and control of insect pests and plant diseases in Maryland. <Bull. No. 55, Md. Agric. Exp. Sta., May, 1898, pp. 137-149, 8 figs.
Notes on *Aphis persicæ-niger*, *Agrotis ypsilon*, *Peridromia saucia*, and legislation.
631. JOHNSON, W. G. Answers to queries and notes on insects injurious in mills. XXI. <Amer. Miller, 1 June, 1898.
Notes on *Tenebroides mauritanicus*.
632. JOHNSON, W. G. •Report on the San Jose scale in Maryland, and remedies for its suppression and control. <Bull. No. 57, Md. Agric. Exp. Sta., August, 1898, pp. 116, 26 figs.
A detailed account of many experiments, particularly with hydrocyanic-acid gas.
633. JOHNSON, W. G. Answers to queries and notes on insects injurious in mills. XXII. <Amer. Miller, October, 1898, p. 777, 2 figs.
Damage by *Sitotroga cerealella*.
634. JOHNSON, W. G. New enemy to celery in Maryland. <Rural New Yorker, 8 October, 1898, p. 686.
Note on celery webworm.
635. JOHNSON, W. G. Hydrocyanic acid gas as a remedy for the San Jose scale and other insects. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 39-43.
Result of his experiments.
636. JOHNSON, W. G. Notes from Maryland on the principal injurious insects of the year. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 92-94.
Treats briefly of a number of species.

637. JOHNSON, W. G. Answers to queries and notes on insects injurious in mills. XXIII. <Amer. Miller, 1 November, 1898, 1 fig.
Treats of the Hessian fly.
638. JOHNSON, W. G. Preliminary notes upon an important peach tree pest. <Entom. News, December, 1898, p. 255.
Note on phytoptid injury.
639. JOHNSON, W. G. Spraying apparatus. <The Ruralist, January, 1899, 4 figs.
640. JOHNSON, W. G. Answers to queries and notes on insects injurious in mills. XXIV. <Amer. Miller, 1 June, 1899, p. 463.
641. JOHNSON, W. G. The Mediterranean flour moth again. <Can. Entom., June, 1899, p. 143.
642. JOHNSON, W. G. Answers to queries and notes on insects injurious in mills. XXV. <Amer. Miller, September, 1899, pp. 612-613.
643. JOHNSON, W. G. Seven new localities for the Mediterranean flour moth, *Ephestia kuehniella*. <Entom. News, September, 1899, p. 207.
644. JOHNSON, W. G. The pea louse; a new and destructive species of the genus *Nectarophora*. <Sci. Amer., 18 November, 1899, p. 325, 3 figs.
645. JOHNSON, W. G. The Emory fumigator; a new method for handling hydrocyanic-acid gas in orchards. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 43-45.
646. JOHNSON, W. G. Miscellaneous entomological notes. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 62-68.
647. JOHNSON, W. G. The destructive pea-louse: a new and important economic species of the genus *Nectarophora*. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 94-98.
Account of *Nectarophora destructor*.
648. JOHNSON, W. G. The stalk worm: a new enemy to young tobacco. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 99-102.
Account of damage to tobacco by *Crambus caliginosellus*.
649. JONES, L. R. Certain potato diseases and their remedies. <Bull. No. 72, Vt. Agric. Exp. Sta., September, 1899, pp. 69.
Notes on *Doryphora decemlineata*, *Crepidodera cucumeris*, and grasshoppers.
650. KAINS, M. G. Carpet beetles. <Farm and Fireside, 1 August, 1899, 1 fig.

651. KEACH, S. B. Tent caterpillars in Connecticut. <Country Gentleman, 17 March, 1898.
652. KEDZIE, R. C. [A new spraying mixture.] <Mich. Farmer, XXX, 1896, 15 August, p. 112.
A combination of white arsenic and sal soda.
653. KELLOGG, V. L. *Carphoxera ptelearia* Riley—Herbarium pest. <Entom. News, January, 1898, pp. 15-16.
654. KELLY, J. Insect destroyers. <Colman's Rural World, 18 August, 1898.
655. KELSEY, F. W. The San Jose scare. <Country Gentleman, 16 November, 1899.
656. KILMAN, A. H. Notes on insects of the year. Division No. 4, Niagara district. <20th Ann. Rept. Entom. Soc. Ontario, 1898 (1899), pp. 90-91, 1 fig.
657. KIRKLAND, A. H. The army worm (*Leucania unipuncta* Haw.). <Rept. Mass. Bd. Agric. f. 1896 (1897), pp. 264-274, 6 figs.
658. KIRKLAND, A. H. Notes on the life history and habits of certain predaceous Heteroptera. <Rept. Mass. Bd. Agric. f. 1896 (1897), pp. 399-411, 2 pls.
Treats of *Podisus placidus*, *Dendrocoris humeralis*, *Euschistus politus*, and *Diplo-
dus luridus*.
659. KIRKLAND, A. H. The habits, food, and economic value of the American toad. <Bull. No. 46, Mass. Agric. Exp. Sta., April, 1897, pp. 30, 25 figs., 2 pls.
660. KIRKLAND, A. H. On the preparation and use of arsenate of lead. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 46-48.
661. KIRKLAND, A. H. Three shade-tree insects. <Bull. No. 2, ser. of 1897, Mass. Crop Rept. for June, 1897, pp. 30-37, 5 figs.
Notes on *Plagionotus speciosus*, *Elaphidion villosum*, and *Gossyparia ulmi*.
662. KIRKLAND, A. H. The work against the gypsy moth, 1897. <28th Ann. Rept. Entom. Soc. Ontario, f. 1897 (1898), pp. 34-36.
663. KIRKLAND, A. H. Danger from the use of arsenate of lead. <Rept. State Bd. Agric. (Mass.) on extermination of the gypsy moth, January, 1898, pp. 90-93.
664. KIRKLAND, A. H. The San Jose scale in Massachusetts. <Bull. No. 2, ser. of 1898, Mass. Crop Rept. for June, 1898, pp. 24-38, 3 figs. <Rept. State Bd. Agric. Mass. f. 1898, pp. 295-315.
665. KIRKLAND, A. H. *Cryptorhynchus lapathi* in Massachusetts. <Psyche, June, 1899, pp. 371-372.

667. KIRKLAND, A. H. The elm-leaf beetle in Massachusetts. <Mass. Crop Rept. for July, 1899, pp. 31-40, 4 figs.
668. KIRKLAND, A. H. A probable remedy for the cranberry fire-worm. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 53-55.
Use of arsenate of lead against *Rhopobota vacciniana*.
669. KIRKLAND, A. H. An improvement in the manufacture of arsenate of lead. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 102-103.
670. KIRKLAND, A. H., and BURGESS, A. F. Experiments with insecticides. <Rept. State Bd. Agric. (Mass.) on extermination of the gypsy moth, January, 1898, pp. 70-89.
Experiments with Paris green, Scheele's green, lead arsenate, barium arsenate, lead phenolate, and diplumbic arsenate.
671. KIRKLAND, A. H., and SMITH, F. J. Digestion in the larvæ of the gypsy moth. <Rept. State Bd. Agric. (Mass.) on extermination of the gypsy moth, January, 1898, pp. 94-101.
KIRKLAND, A. H. See FERNALD, C. H., and KIRKLAND, A. H.
672. KLEBERG, R. J. Dipping cattle to eradicate Texas fever. <Texas Stockman and Farmer, 24 November, 1897, p. 10.
673. [KRUCKEBERG, H. W.] Economic entomology. <Rural Calif., January, 1897, pp. 15-16.
Enemies of mealy bugs; insect notes.
674. [KRUCKEBERG, H. W.] Economic entomology. <Rural Calif., February, 1897, p. 63.
Insects affecting domestic animals; orange fruit worm; insect notes.
675. [KRUCKEBERG, H. W.] Economic entomology. <Rural Calif., March, 1897, p. 117.
Legislation; three good washes; spray pumps.
676. [KRUCKEBERG, H. W.] Economic entomology. <Rural Calif., April, 1897, p. 158.
Orange fruit worm; quarantine.
677. [KRUCKEBERG, H. W.] Economic entomology. <Rural Calif., May, 1897, p. 197.
A night marauder (*Limax*) in gardens; army worm.
678. [KRUCKEBERG, H. W.] Economic entomology. <Rural Calif., June-July, 1897, p. 262.
Destroying garden pests; moths.
679. [KRUCKEBERG, H. W.] Economic entomology. <Rural Calif., August, 1897, p. 306.
The economic toad; insect police; gypsy moth.
680. [KRUCKEBERG, H. W.] Economic entomology. <Rural Calif., September, 1897, p. 344.
Mexican and Japanese insects; insect notes.

681. [KRUCKEBERG, H. W.] Economic entomology. <Rural Calif., October, 1897, p. 380.
Nature's remedy in Florida and Jamaica; orange fruit worm.
682. [KRUCKEBERG, H. W.] Economic entomology. <Rural Calif., November, 1897, p. 420.
Bisulphide of carbon.
683. [KRUCKEBERG, H. W.] Economic entomology. <Rural Calif., December, 1897, p. 460.
Notes on borers and bisulphide of carbon.
684. [KRUCKEBERG, H. W.] Economic entomology. <Rural Calif., January, 1898, p. 16.
Notes on codling moth.
685. [KRUCKEBERG, H. W.] Economic entomology. <Rural Calif., March, 1898, p. 72.
Notes on San Jose scale and peach borer.
686. [KRUCKEBERG, H. W.] Economic entomology. <Rural Calif., April, 1898, p. 113.
Spraying against San Jose scale.
687. [KRUCKEBERG, H. W.] Economic entomology. <Rural Calif., May, 1898, p. 150.
Treats of the codling moth.
688. [KRUCKEBERG, H. W.] Economic entomology. <Rural Calif., June, 1898, pp. 188-189.
Notes on cutworms, peach-tree borer, and *Smythurus* sp.
689. [KRUCKEBERG, H. W.] Spraying. <Rural Calif., August, 1898, p. 277.
690. [KRUCKEBERG, H. W.] Entomology. <Rural Calif., February, 1899, p. 71.
Notes on grasshoppers.
691. [KRUCKEBERG, H. W.] Kedzie's spraying mixture. <Rural Calif., October, 1899.
692. [KRUCKEBERG, H. W.] Economic entomology. <Rural Calif., November, 1898, p. 397.
Notes on insects on onions.
693. LA MOTTE, A. V. Codlin moth tar trays. <Calif. Fruit Grower, 27 August, 1898, p. 1.
694. LAUGHLIN, W. R. The striped bug. <Colman's Rural World, 24 June, 1897, p. 195.
Notes on *Diabrotica vittata*.
695. LAUGHTER, W. R. The boll weevil. <Texas Stockman and Farmer, 28 September, 1898, p. 1.
696. LAURENT, P. Osage orange injured by wood borers. <Entom. News, February, 1898, pp. 33-34.
Notes on *Dorcascema wildii* and *D. alternatum*.

697. LELONG, B. M. Insect pests and tree diseases liable to be introduced into the State and especially to be guarded against. <5th Bien. Rept. Calif. State Bd. Hortic., 1895-96 (1897), pp. 23-27, 2 pls.
Descriptive list of several common Eastern insect pests.
698. LELONG, B. M. Treatment for codlin moth. <Pacific Rural Press, 1 May, 1897, p. 279.
699. LELONG, B. M. Apple stocks resistant to pests. <Pacific Rural Press, 17 December, 1898.
700. LEWIS, L. L. Texas fever. <Bull. No. 27, Okla. Agric. Exp. Sta., June, 1897, pp. 8-15.
701. LEWIS, L. L. Texas fever. <Bull. No. 39, Okla. Agric. Exp. Sta., May, 1899, p. 28.
An account of experiments.
702. LINN, F. D. Strawberry leaf-roller. <Prairie Farmer, 6 March, 1897, p. 9, 1 fig.
703. LINTNER, J. A. Elm-leaf beetle. <Country Gentleman, 7 January, 1897, p. 7.
704. LINTNER, J. A. Two insects. <Country Gentleman, 11 February, 1897, p. 106.
Notes on *Hypoderma lineata*.
705. LINTNER, J. A. Potato bugs. <Country Gentleman, 18 February, 1897, p. 126.
706. LINTNER, J. A. Carbon bisulfid for pea weevil. <Farmers' Advocate, 15 March, 1897, p. 130.
707. LINTNER, J. A. Probably the cheese-mite. <Country Gentleman, 18 March, 1897, p. 217.
Tyroglyphus siro on hams.
708. LINTNER, J. A. Canker worms. <Country Gentleman, 1 April, 1897, p. 248.
709. LINTNER, J. A. Apple-tree borers. <Country Gentleman, 22 April, 1897, p. 307.
Notes on *Saperda candida* and *Chrysobothris femorata*.
710. LINTNER, J. A. Grasshopper. <Country Gentleman, 29 April, 1897, p. 326.
Eggs of *Microcentrum retinervis*.
711. LINTNER, J. A. Cow-horn fly. <Country Gentleman, 6 May, 1897, p. 350.
712. LINTNER, J. A. Elm and apple-tree pests. <Country Gentleman, 20 May, 1897, p. 390.
Elm-leaf beetle and apple-tree borer.
713. LINTNER, J. A. Tent caterpillars. <Country Gentleman, 20 May, 1897, p. 390.
Note on *Clisiocampa americana*.

714. LINTNER, J. A. May beetle. <Country Gentleman, 20 May, 1897, p. 390.
715. LINTNER, J. A. Strawberries and Indian corn. <Country Gentleman, 20 May, 1897, p. 394.
Cutworms and *Heliothis armiger*.
716. LINTNER, J. A. Elm-tree beetle. <Country Gentleman, 27 May, 1897, p. 406.
717. LINTNER, J. A. Grasshoppers. <Country Gentleman, 10 June, 1897, p. 446.
718. LINTNER, J. A. Apple woolly louse. <Country Gentleman, 10 June, 1897, p. 454.
719. LINTNER, J. A. Arsenic and animals. <Country Gentleman, 10 June, 1897, p. 454.
720. LINTNER, J. A. Apple-tree aphid. <Country Gentleman, 17 June, 1897, p. 470.
Note on *Aphis mali*.
721. LINTNER, J. A. Carpet beetles. <Country Gentleman, 17 June, 1897, p. 470.
Note on *Anthrenus scrophulariæ*.
722. LINTNER, J. A. Grain weevil. <Country Gentleman, 24 June, 1897, p. 486.
723. LINTNER, J. A. Wire-worms. <Country Gentleman, 24 June, 1897, p. 486.
724. LINTNER, J. A. Long-sting. <Country Gentleman, 1 July, 1897, p. 506.
Note on *Thalessa atrata*.
725. LINTNER, J. A. Army-worm. <Country Gentleman, 1 July, 1897, p. 506.
726. LINTNER, J. A. Honeydew. <Country Gentleman, 8 July, 1897, p. 526.
727. LINTNER, J. A. Cherry-tree Myzus. <Country Gentleman, 8 July, 1897, p. 526.
728. LINTNER, J. A. Scurvy bark louse. <Country Gentleman, 8 July, 1897, p. 526.
729. LINTNER, J. A. Plant lice. <Country Gentleman, 8 July, 1897, p. 526.
730. LINTNER, J. A. The San Jose scale. <Country Gentleman, 8 July, 1897, p. 533.
731. LINTNER, J. A. Not the gypsy moth. <Country Gentleman, 15 July, 1897, p. 558.
732. LINTNER, J. A. Chinchbug. <Country Gentleman, 15 July, 1897, p. 558.

733. LINTNER, J. A. Subterranean grubs. <Country Gentleman, 26 August, 1897, p. 666.
Damage by white grubs.
734. LINTNER, J. A. San Jose scale. <Country Gentleman, 26 August, 1897, p. 667.
735. LINTNER, J. A. Tussock moth. <Country Gentleman, 2 September, 1897, p. 686.
Note on *Halisidota caryæ*.
736. LINTNER, J. A. Insects and fruit. <Country Gentleman, 2 September, 1897, p. 686.
737. LINTNER, J. A. *Urocerus albicornis*. <Country Gentleman, 9 September, 1897, p. 707.
738. LINTNER, J. A. Plague of flies. <Country Gentleman, 14 October, 1897, p. 806.
739. LINTNER, J. A. Pine borer. <Country Gentleman, 4 November, 1897, p. 867; 11 November, 1897, p. 887.
Note on *Harmonia pini*.
740. LINTNER, J. A. Fall canker-worm and its eggs. <Country Gentleman, 16 December, 1897, p. 986.
Note on *Anisopteryx pometaria*.
741. LINTNER, J. A. Twelfth report on the injurious and other insects of the State of New York, for the year 1896. <50th Ann. Rept. N. Y. State Mus. Nat. Hist. (May, 1898), pp. 163-399, 15 pls., 10 figs.
Treats of *Formica exsectoides*, *F. subsericea*, *Ecpantheria scribonia*, *Leucania unipuncta*, *Steganoptycha claypoleana*, *Oxyptilus periscelidactylus*, *Sciara* spp., *Piophilus casei*, *Lebia grandis*, *Plagionotus speciosus*, *Saperda tridentata*, *Crioceris 12-punctata*, *Galerucella luteola*, *Odontota dorsalis*, *Balaninus proboscoides*, *B. rectus*, *Cicada septendecim*, *Pemphigus rhois*, *Gossyparia ulmi*, *Neuronia pardalis*, *Leptodesmus falcatus*; notes on *Tenthredo rufopectus*, *Datana integerrima*, *Leucania albilinea*, *Eufitchia ribearia*, *Anisopteryx vernata*, *Cacæcia rosaceana*, *Euphoria inda*, *Elaphidion villosum*, *Crioceris asparagi*, *Macrobasis unicolor*, *Blissus leucopterus*, *Aspidiotus perniciosus*, *Kermes galliformis*, *Phytoptus pruni*, mosquitoes, and a Cecidomyid in chokecherries.
742. LINTNER, J. A. Thirteenth report on the injurious and other insects of the State of New York, 1897. <51st Ann. Rept. N. Y. State Mus. Nat. Hist., 1898, pp. 331-390, 3 figs., 2 pls.
Treats of *Tenthredo rufopectus*, *Urocerus albicornis*, *U. cressoni*, *Eacles imperialis*, and *Lygus pratensis*; notes on *Pyrallis costalis*, *Cecidomyia leguminicola*, *Anthrenus scrophulariæ*, *Elaphidion villosum*, *Cyllene pictus*, *Galerucella luteola*, *Blissus leucopterus*, *Pemphigus populi-transversus*, *Chaitophorus* sp., *Callipterus ulmifolii*, *Drepanosiphum acerifolii*, *Aphis mali*, *Myzus cerasi*, *Myzus ribis*, *Rhopalosiphum* sp., and *Thrips tabaci*.
743. LLOYD, J. W. Fighting the San Jose scale. <Farm, Field and Fireside, 9 April, 1898, p. 456.

744. LOCHHEAD, W. A few of the most noxious insects. <Rept. Ont. Agric. Coll. and Exp. Farm, 1898, pp. 11-13, 4 figs.
Notes on *Aphis brassicae*, *Clisiocampa dissidia*, *Nematus erichsonii*, and *Lecanium* sp.
745. LOCHHEAD, W. The San Jose scale problem. <Farming, 13 June, 1899, 1 fig.
746. LODEMAN, E. G., and GOULD, H. P. Spray calendar. <Bull. No. 114, Cornell Univ. Agric. Exp. Sta., February, 1896; second edition, April, 1898.
Remedies and time of application.
747. LOWE, V. H. Two important insect pests. <Trans. N. Y. State Agric. Soc. f. 1896 (1897), pp. 338-361, 3 pls.
Treats of cankerworms and pistol-case bearer.
748. LOWE, V. H. Three important insects injurious to nursery stock. <Proc. 42d Ann. Meet. West. N. Y. Hortic. Soc. <Trans. N. Y. State Agric. Soc. f. 1896 (1897), pp. 644-658.
Treats of peach-tree borer, woolly aphis, and San Jose scale.
749. LOWE, V. H. Report of the entomologists. Part I. <15th Ann. Rept. N. Y. State Agric. Exp. Sta., f. 1896 (1897), pp. 523-607, 15 pls.
Treats of grasshoppers, *Diabrotica vittata*, *Crioceris asparagi*, *C. 12-punctatus*, *Myzus ribis*, *Tetranychus telarius*, *Blissus leucopterus*, *Aspidiotus ancyllus*, *Mytilaspis pomorum*, cankerworms, experiments with green arsenite (Scheele's green), experiments with dendrolene, *Lina scripta*, *Coleophora malivorella*, nursery-stock inspection, *Samina exitiosa*, *Schizoneura lanigera*, and *Leucania unipuncta*.
750. LOWE, V. H. The pistol-case bearer. <Bull. No. 122, N. Y. State Agric. Exp. Sta., April, 1897, 13 pp., 3 pls.
Treats of *Coleophora malivorella*.
751. LOWE, V. H. The pistol-case bearer. <Garden and Forest, 9 June, 1897, pp. 224-225, 2 figs.
Account of *Coleophora malivorella*.
752. LOWE, V. H. Inspection of nurseries and treatment of infected nursery stock. <Bull. No. 136, N. Y. State Agric. Exp. Sta., December, 1897, pp. 30, 6 pls.
Notes on the various insects found and remedies for them.
753. LOWE, V. H. Plant-lice—descriptions, enemies, and treatment. <Bull. No. 139, N. Y. State Agric. Exp. Sta., December, 1897, pp. 646-664, 4 pls.
Treats of plant lice in general and of *Hyalopterus pruni* and *Myzus ribis* in particular.
754. LOWE, V. H. The tent caterpillar destructive. <Amer. Agriculturist, 14 May, 1898, p. 618.
755. LOWE, V. H. The raspberry sawfly. <Bull. No. 150, N. Y. State Agric. Exp. Sta., December, 1898, pp. 251-262, 6 pls.
Treats of *Monophadnus* (*Monophadnoides*) *rubi*.

756. LOWE, V. H. Preliminary notes on the grape-vine flea-beetle. <Bull. No. 150, N. Y. State Agric. Exp. Sta., December, 1898, pp. 263-265, 1 pl.
Habits of and remedies for *Haltica chalybea*.
757. LOWE, V. H. Two destructive orchard insects. <Bull. No. 152, N. Y. State Agric. Exp. Sta., December, 1898, pp. 279-301.
Treats of *Clisiocampa americana*, *C. disstria*, *Hyphantria cunea*, and *Anisopteryx vernata*.
758. LOWE, V. H. A Trypeta attacking sour cherries. <Country Gentleman, 31 August, 1899, p. 693.
Notes on *Trypeta cingulata*.
759. LOWE, V. H. The forest tent caterpillar. <Bull. No. 159, N. Y. State Agric. Exp. Sta., October, 1899, pp. 35-60, 6 pls.
Full account of *Clisiocampa disstria*.
760. LUGGER, O. The Orthoptera of Minnesota. <Bull. No. 55, Minn. Agric. Exp. Sta., December, 1897, pp. 295, 187 figs.
An account of all the species known in the State, and remedies for grasshoppers in general.
761. LUGGER, O. Butterflies and moths injurious to our fruit-producing plants. <Bull. No. 61, Minn. Agric. Exp. Sta., March, 1899, pp. 55-333, 24 pls., 237 figs.
Brief accounts of a large number of species.
762. [LUGGER, O.] White mountain locust here. <Farm, Stock and Home, 15 July, 1899, 3 figs.
Melanoplus atlantis in Minnesota.
763. LUGGER, O. The Hessian fly. <Bull. No. 64, Minn. Agric. Exp. Sta., October, 1899, pp. 551-557, 5 figs.
A general article on the insect.
764. LUGGER, O. Migratory locusts or grasshoppers. <Bull. No. 64, Minn. Agric. Exp. Sta., October, 1899, pp. 558-569, 7 figs., 2 pls.
Notes on *Melanoplus spretus*, *M. femur-rubrum*, *M. atlantis*, *M. bivittatus*, and *Camnula pellucida*.
765. LUGGER, O. Beetles injurious to fruit-producing plants. <Bull. No. 66, Minn. Agric. Exp. Sta., December, 1899, pp. 85-331, 164 figs.
Brief accounts of many species.
766. MACLELLAN, A. Protecting the elm. <Amer. Gardening, 27 August, 1898.
Protests against the use of bands to keep off the elm-leaf beetle.
767. MALLY, C. W. Studies of the San Jose scale outbreak in Ohio. <Ohio State Hortic. Soc., 1897, pp. 58-61, 1 fig.
MALLY, C. W. See WEBSTER, F. M., and MALLY, C. W.

768. MALLY, F. W. The boll weevil pest—how it may be dealt with and eradicated. <Cotton Ginners' Journal, May, 1899, p. 9.
Remedies for *Anthonomus grandis*.
769. MALLY, F. W. Fighting the boll weevil. <Texas Farm and Ranch, June, 1899, pp. 3-4.
Means against *Anthonomus grandis*.
770. MALLY, F. W. The boll weevil. <Texas Stockman and Farmer, 7 June, 1899.
771. MALLY, F. W. Appeal to Texas cotton farmers. <Texas Stockman and Farmer, 14 June, 1899.
Collection of weevil-infested squares.
772. MALLY, F. W. Boll weevil and boll worm. <Texas Stockman and Farmer, 5 July, 1899.
773. MALLY, F. W. Protecting farm crops from insect attacks. <Texas Stockman and Farmer, 30 August, 1899.
774. MALLY, F. W. Insect pests. <Texas Stockman and Farmer, 16 August, 1899, p. 14.
775. MARLATT, C. L. Insect control in California. <Yearbook U. S. Dept. Agric. f. 1896 (1897), pp. 217-236, 3 figs.
776. MARLATT, C. L. The clover mite. <Cir. No. 19, s. s., Div. Ent., U. S. Dept. Agric., April, 1897, pp. 4, 1 fig.
Account of *Bryobia pratensis*.
777. MARLATT, C. L. The woolly aphid of the apple. <Cir. No. 20, s. s., Div. Ent., U. S. Dept. Agric., April, 1897, pp. 6, 2 figs.
Full account of *Schizoneura lanigera*.
778. MARLATT, C. L. The buffalo tree-hopper. <Cir. No. 23, s. s., Div. Ent., U. S. Dept. Agric., June, 1897, pp. 4, 2 figs.
Account of *Ceresa bubalus*.
779. MARLATT, C. L. The ox warble. <Cir. No. 25, s. s., Div. Ent., U. S. Dept. Agric., August, 1897, pp. 10, 10 figs.
Account of *Hypoderma lineata*.
780. MARLATT, C. L. The pear slug. <Cir. No. 26, s. s., Div. Ent., U. S. Dept. Agric., September, 1897, pp. 7, 5 figs.
Treats of *Eriocampoides limacina*.
781. MARLATT, C. L. Notes on insecticides. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 54-63.
Experiments on the value of a number of insecticides.
782. MARLATT, C. L. The peach twig-borer (*Anarsia lineatella* Zell.). <Bull. No. 10, n. s., Div. Ent., U. S. Dept. Agric., March, 1898, pp. 7-20, 5 figs.
A detailed account of the insect.

783. MARLATT, C. L. The periodical cicada. <Bull. No. 14, n. s., Div. Ent., U. S. Dept. Agric., June, 1898, pp. 148, figs. 57, 2 pls.
An account of *Cicada septendecim*, its natural enemies, and the means of preventing its injury, together with a summary of the distribution of the different broods.
784. MARLATT, C. L. The true clothes moths. <Cir. No. 36, s. s., Div. Ent., U. S. Dept. Agric., August, 1898, pp. 8, 3 figs.
A full account of three species.
785. MARLATT, C. L. Notes on insecticides. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 94-98.
Report on experiments with several insecticides.
786. MARLATT, C. L. A new nomenclature of the broods of the periodical cicada. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 52-58.
787. MARLATT, C. L. A consideration of the validity of the old records bearing on the distribution of the broods of the periodical cicada, with particular reference to the occurrence of broods VI and XXIII in 1898. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 59-78.
- 787a. MARLATT, C. L. An investigation of applied entomology in the Old World. <Proc. Entom. Soc. Wash., Vol. IV (May, 1899), pp. 265-291.
788. MARLATT, C. L. A dangerous European scale insect not hitherto reported, but already well established in this country. <Science, 7 July, 1899, pp. 18-20.
Account of *Aspidiotus ostreaformis*.
789. MARLATT, C. L. The laissez-faire philosophy applied to the insect problem. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 5-19. <Reviews: Country Gentleman, 14 September, 1899, p. 728; Science, 8 September, 1899, p. 333; National Nurseryman, October, 1899; Entom. News, February, 1900, p. 370; Orange Judd Farmer, 6 January, 1900.
790. MARLATT, C. L. Temperature control of scale insects. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 73-76.
791. MARLATT, C. L. An account of *Aspidiotus ostreaformis*. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 76-82, 4 figs.
Life history of the scale.
MARLATT, C. L. See HOWARD, L. O., and MARLATT, C. L.
792. MARTIN, G. A. Animal parasites of poultry. <Amer. Agriculturist, 23 January, 1897, 4 figs.

793. MASSEY, W. F. Peach borers. <Southern Planter, March, 1897, p. 108.
794. MASSEY, W. F. Cutworms, dogs, etc. <Southern Planter, June, 1897, p. 252.
795. MASSEY, W. F. San Jose scale. <Southern Planter, December, 1897, p. 549.
A new locality in North Carolina, and feeding on lilac.
796. MASSEY, W. F. The apple in North Carolina. <Bull. No. 149, N. Car. Agric. Exp. Sta., June, 1898, pp. 321-325.
Treats briefly of the common apple insects.
797. MASSEY, W. F. Chinch bug. <Practical Farmer, 9 September, 1899.
798. MAY, J. N. Killing aphids by vaporizing tobacco. <Amer. Florist, 1898, p. 1318.
799. MAYNARD, S. T. Spraying for the destruction of insects and fungous growths. <Bull. No. 52, Mass. Agric. Exp. Sta., March, 1898, pp. 15-17.
800. MAYNARD, S. T. Spraying for the destruction of insects and fungous pests. <Bull. No. 60, Mass. Agric. Exp. Sta., April, 1899, pp. 11.
Preparation and use of insecticides, and a spraying calendar.
801. MAYNARD, S. T. Spraying crops for profit. <Mass. Crop. Rept. for May, 1899, pp. 25-32.
802. MAYNARD, S. T. Insects and fungi attacking ornamental trees and shrubs. <Landscape Gardening, 1899, pp. 261-288, 13 figs.
Brief notes on many species.
803. MAYO, N. S. Texas fever. <Bull. No. 69, Kans. Agric. Exp. Sta., June, 1897, pp. 124-134.
804. MAYO, N. S. Texas fever. <11th Bien. Rept. Kans. State Bd. Agric., 1897-98 (1898), pp. 70-71.
805. MCCARTHY, G. The San Jose scale in North Carolina. <Bull. No. 138, N. Car. Agric. Exp. Sta., January, 1897, pp. 45-55, 1 fig.
806. MCCARTHY, G. A new tobacco pest. <Bull. No. 141, N. Car. Agric. Exp. Sta., July, 1897, pp. 133-135, 1 fig.
Treats of *Gelechia piscipelis* Zell, whose larva mines the leaves of tobacco.
807. McCULLOCH, C. The prevention of Texas cattle fever and the amended laws controlling contagious and infectious diseases. <Bull. No. 104, Va. Agric. Exp. Sta., September, 1899, pp. 167-180.
808. MEAD, C. E. *Collops bipunctatus* as an enemy of the Colorado potato beetle. <Amer. Nat., December, 1899, pp. 927-929.

809. MEEHAN, J. Insecticides for vegetables. <Prairie Farmer, 3 April, 1897, p. 9.
810. MEEHAN, J. The San Jose scale. <Gardening, 15 December, 1897.
811. MEEHAN, J. Bees injuring grapes. <Country Gentleman, 31 March, 1898.
Notice of considerable damage by bees to grapes.
812. MEEHAN, T. Insects in the garden. <Garden and Forest, 29 September, 1897, p. 387.
813. MILLER, H. W. San Jose scale—The necessity of immediate legislation. <W. Va. Farm Review, July, 1898, p. 206.
814. M'INTOSH, D. Origin and cure of lice. <Amer. Agriculturist, 12 February, 1898, p. 181.
Lice on cattle and horses.
815. MISERVE, A. R. Lady birds. <Rural Californian, May, 1899.
Little faith in their value.
816. MOFFAT, J. A. Notes on the season of 1898. <29th Ann. Rept. Entom. Soc. Ontario, 1898 (1899), pp. 100–103, 1 fig.
817. MOFFITT, D. The chinch bug. <Indiana Farmer, 29 July, 1899.
818. MOKREZHETSKI, S. Some observations on the cycle of the sexual development of the "blood louse" (*Schizoneura lanigera*). <Bull No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 78–81.
819. MORGAN, H. A. Report of the entomologist. <Bull. No. 48, La. Agric. Exp. Sta., August, 1897, pp. 128–159, 17 figs.
Treats of legislation, cotton mite, *Artace punctistriga* as a peach insect, *Ptychodes trivittatus* in fig, *Murgantia histrionica*, *Caliroa obsoletum* on peach and plum, *Datana integerrima* injuring pecans, *Leptoglossus phyllopus*, maggot in man (*Hermetia illucens*), *Delphax maidis*, insecticides, and bred parasites.
820. MORGAN, H. A. Ticks and Texas fever. <Bull. No. 56, La. Agric. Exp. Sta., September, 1899, pp. 128–141, 9 pls.
Notes on *Boophilus* and other ticks.
821. MUNSON, W. M. The forest tent caterpillar. <Rural New Yorker, 1899, p. 421.
Recommends lead and sulphur, equal parts, put on paper around trunk of tree to prevent caterpillars ascending.
822. MURTFELDT, M. E. The apple tree aphis. <St. Louis Journ. Agric., 22 April, 1897.
Note on *Aphis mali*.
823. MURTFELDT, M. E. Trapping climbing cutworms. <Colman's Rural World, 13 May, 1897.

824. MURTFELDT, M. E. The American toad. <Colman's Rural World, 16 December, 1897.
825. MURTFELDT, M. E. Some insects of the flower garden. <Ann. Rept. Mo. State Hortic. Soc. f. 1898 (1898), pp. 286-294.
Notes on various species.
826. MURTFELDT, M. E. An experiment with mosquitoes. <Journal National Science Club, July, 1899, pp. 14-17.
827. MURTFELDT, M. E. Some entomological specimens. <Colman's Rural World, 3 August, 1899.
Notes on *Stagmomantis carolina*, *Protoparce carolina*, *Platysamia cecropia*, and *Telea polyphemus*.
828. MURTFELDT, M. E. Entomological inquiries. <Colman's Rural World, 10 August, 1899.
Notes on *Carneades messoria* and white grub in strawberry beds.
829. MURTFELDT, M. E. Katydid's eggs. <Colman's Rural World, 16 November, 1899, p. 3.
830. NEWELL, W. Bird friends. <Trans. Iowa State Hortic. Soc. f. 1898 (1898), pp. 67-69.
831. NEWELL, W. Some injurious scale insects. <Bull. No. 43, Iowa Agric. Exp. Sta., October, 1899, pp. 145-176, 19 figs.
Treats of a number of species.
832. NICOL, J. A troublesome insect. <Amer. Florist, 29 May, 1897.
Note on white fly.
833. NILES, E. P. The cattle tick in Virginia. <Bull. No. 76, Va. Agric. Exp. Sta., July, 1898, pp. 45-50. <Southern Planter, July, 1898, pp. 326-327.
Notes also on *Ixodes ricinus* and *Amblyomma unipunctata*.
834. NILES, E. P. A preliminary study of ticks. <Bull. No. 86, Va. Agric. Exp. Sta., March, 1899, pp. 25-30, 4 pls.
Treats of several species.
835. OGILVIE, J. W. Weevils in grain. <Home and Farm, 15 June, 1899.
836. ORR, J. E. The San Jose scale. <Rural Canadian, February, 1898, pp. 39-40.
837. OSBORN, H. Some insects affecting shade trees. <Trans. Iowa State Hortic. Soc. f. 1896 (1897), pp. 291-293.
Notes on *Anisota rubicunda*, *Datana angusii*, *Hyphantria cunea*, and *Scolytus 4-spinosus*.
838. OSBORN, H. The San Jose scale. <Bull. No. 36, Iowa Agric. Exp. Sta., 1897, pp. 860-864, 3 figs.
Not yet in Iowa.

839. OSBORN, H. The Hessian fly in the United States. <Bull. No. 16, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 58, 8 figs., 3 pls.
A full consideration of the species.
840. OSBORN, H. The duty of economic entomology. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 6-12.
841. OSBORN, H. Some problems connected with the attacks of Jassidæ on grasses. <Proc. 19th Ann. Meet. Soc. Prom. Agric. Sci., 1898, pp. 101-102.
842. OSBORN, H., and BALL, E. D. Studies on the life-histories of grass feeding Jassidæ. <Bull. No. 34, Iowa Agric. Exp. Sta., 1897, pp. 612-640, 7 pls.
Life habits of many species, with remedies for leaf hoppers in general.
843. P——, C. A. Fencing out cutworms. <Country Gentleman, 8 June, 1899.
844. P——, G. C. A new pest in Nebraska, the alfalfa or "Fall army" worm. <Country Gentleman, 19 October, 1899, p. 833.
845. PAGE, F. H. Test and treatment for San Jose scale. <Rural New Yorker, 26 March, 1898, p. 218.
846. PANTON, J. H. Two insect pests of 1896. <27th Ann. Rept. Entom. Soc. Ontario, f. 1896 (1897), pp. 44-54, 8 figs., 1 map.
Treats of *Leucania unipuncta* and *Orgyia leucostigma*.
847. PANTON, J. H. Instructions in spraying. <Bull. Ont. Agric. Coll. and Exptl. Farm, 1897, pp. 15, 14 figs.
Directions for the preparation and use of insecticides.
848. PANTON, J. H. San Jose scale. <Bull. No. 106, Ont. Agric. Coll. and Exptl. Farm, June, 1897, pp. 7, 3 figs.
849. PANTON, J. H. A new enemy to fruit growing. <Rural Canadian, August, 1897, pp. 178-179, 3 figs.
Notes on San Jose scale.
850. PARROTT, P. J. The elm-twigg girdler. <The Industrialist, April, 1898, pp. 267-270, 4 figs.
Treats of *Oncideres cingulatus*.
851. PARROTT, P. J. Some scales of the orchard. <Trans. Kans. State Hortic. Soc. f. 1898 (1899), pp. 106-109, 2 figs.
Notes on various species.
852. PARROTT, P. J. Canker-worm traps. <Kansas Farmer, 20 April, 1899, p. 274.
853. PARROTT, P. J. The strawberry leaf-roller. <Colman's Rural World, 4 May, 1899.
854. PARROTT, P. J. Codling moth. <Kansas Farmer, 4 May, 1899, p. 306.

855. PARROTT, P. J. The effects of insecticides upon the germination of seed. <Kansas Farmer, 11 May, 1899.
856. PARROTT, P. J. A bill-bug on corn. <Kansas Farmer, 11 May 1899, p. 314, 1 fig.
Notes on *Sphenophorus pertinax*.
857. PARROTT, P. J. The corn wireworm. <Kansas Farmer, 15 June, 1899, p. 398.
Note on *Melanotus cribulosus*.
858. PARROTT, P. J. To rid the house of flies. <Kansas Farmer, 29 June, 1899.
859. PARROTT, P. J. The chicken mite. <Field, Farm and Fireside, 8 July, 1899. <New England Farmer, 20 May, 1899.
860. PARROTT, P. J. Horn fly remedy. <Kansas Farmer, 13 July, 1899, p. 471.
- PARROTT, P. J. See FAVILLE, E. E., and PARROTT, P. J.
861. PEASE, S. A. Fighting scale insects. <Rural Calif., January, 1898, pp. 22-23.
862. PERGANDE, THEO. The plum plant-louse. <Bull. No. 7, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 52-59.
Description, food plants, and life history of *Myzus mahaleb*.
863. PERGANDE, THEO. The peach Lecanium. <Bull. No. 18, n. s., Div. Ent., U. S. Dept. Agric., 1898, pp. 26-29, 2 figs.
Description and habits of *Lecanium nigrofasciatum*.
- PERGANDE, THEO. See HUBBARD, H. G., and PERGANDE, THEO.
864. PERKINS, G. H. Report of the entomologist. <10th Ann. Rept. Vt. Agric. Exp. Sta., 1896-97 (1897), pp. 75-86, 4 figs.
Treats of *Tetranychus telarius*.
865. PERKINS, G. H. Insects of the year. <Bull. No. 60, Vt. Agric. Exp. Sta., October, 1897 (February, 1898), 16 pp., 5 figs.
Notes on tent caterpillars, oyster-shell bark louse, San Jose scale, and apple-tree borers.
866. PETTIT, J. B. The San Jose scale. <Farming, 18 July, 1899.
867. PETTIT, R. H. Some insects of the year 1897. <Bull. No. 160, Mich. Agric. Exp. Sta., June, 1898, pp. 399-436, 27 figs.
Treats briefly of many insects.
868. PETTIT, R. H. Some insects of the year 1898. <Bull. No. 175, Mich. Agric. Exp. Sta., July, 1899, pp. 341-373, 20 figs.
Notes on various insects, especially *Thrips tabaci*, *Depressaria persicæella*, *Chrysomela suturalis*, and *Scolytus rugulosus*.
869. PHILLIPS, J. L., and PRICE, H. L. The nature and use of certain insecticides. <Bull. No. 97, Va. Agric. Exp. Sta., February, 1899, pp. 11-26.
Contains also a note on *Nectarophora destructor*.

870. PIERCE, N. B. Fig caprification. <Calif. Fruit Grower, 5 March, 1898, p. 4.
871. PIPER, C. V., and DOANE, R. W. Miscellaneous injurious insects. <Bull. No. 35, Wash. Agric. Exp. Sta., May, 1898, pp. 24, 13 figs.
Treats of *Aspidiotus perniciosus*, *Tmetocera ocellana*, *Sesia rutilans*, *Sphinx albescens*, *Protoparce celeus*, *Epicauta puncticollis*, and *Cantharis viridana*.
872. PIPER, C. V., and DOANE, R. W. Insects injurious to currants and gooseberries. <Bull. No. 36, Wash. Agric. Exp. Sta., May, 1898, pp. 16, 8 figs.
Treats of *Rhagoletis ribicola*, *Epochra canadensis*, *Dakruma convolutella*, *Gymnonychus appendiculatus*, *Eubya cognitaria*, *Myzus ribis*, *Sesia tipuliformis*, and *Pulvinaria innumerabilis* var. *occidentalis*.
873. POPENOE, E. A. Lice of cattle. <11th Bien. Rept. Kans. State Bd. Agric., 1897-98 (1898), pp. 67-69, 2 figs.
Notes on *Hæmatopinus eurysternus*, *H. vituli*, and *Trichodectes scalaris*.
874. POPENOE, E. A. Some insects of the year. <Kansas Farmer, 29 June, 1899, pp. 438-439. <Trans. Kans. State Hortic. Soc. f. 1898 (1899), pp. 40-46.
Notes on *Phycis indiginella*, *Teras minuta*, *Hyphantria cunea*, *Datana ministra*, *Dorcaschema wildii*, *D. alternata*, *Anthonomus quadrigibbus*, *Epilachna borealis*, *Aspidiotus forbesi*, and *Scolytus rugulosus*.
875. POPENOE, E. A. Was it stalk borer? <Kansas Farmer, 21 December, 1899.
876. POST, L. J. A practical potato bugger. <Rural New Yorker, 4 September, 1897, p. 580, 1 fig.
877. POWELL, E. P. Forest worms very destructive. <Amer. Agriculturist, 17 June, 1899.
878. POWELL, G. H. The strawberry-root louse, *Aphis forbesi*. <Garden and Forest, 10 March, 1897, pp. 93-94.
879. POWELL, G. H. Note on the strawberry-root-louse (*Aphis forbesi*). <Gardening, 1 February, 1898, p. 151.
880. POWELL, G. H. The chestnut weevil. <Amer. Gardening, 1899, p. 444.
881. POWELL, G. H. The San Jose scale. <Rept. Del. Agric. Exp. Sta. f. 1898 (1899), pp. 234-246.
882. POWELL, G. H. The pear Psylla and its ravages. <Country Gentleman, 7 July, 1898, p. 534.
883. POWERS, S. Catching the tobacco fly. <Southern Planter, July, 1898, p. 318.
Poisoning the Sphinx moth.
884. PUTNAM, F. A. June grass Thrips. <New England Farmer, 2 July, 1898.
A species of thrips infesting various forage grasses.

885. QUAINANCE, A. L. On the life-history of *Brachytarsus alternatus*. <Entom. News, January, 1897, pp. 1-3, 1 pl.
Larvæ feeding on kernels of corn and cowpeas.
886. QUAINANCE, A. L. The fall army worm: Southern grass worm.
<Bull. No. 40, Fla. Agric. Exp. Sta., June, 1897, pp. 507-512, 3 figs.
Treats of *Laphygma frugiperda*.
887. QUAINANCE, A. L. Some strawberry insects. <Bull. No. 42, Fla. Agric. Exp. Sta., August, 1897, pp. 551-600, 23 figs.
Treats of *Thrips tritici*, *Pamera vineta*, *Lygus pratensis*, *Leptoglossus phyllopus*, *Corimelæna pulicaria*, cutworms, white grubs, *Haltica ignita*, grasshoppers, crickets, *Tyloclerma fragariæ*, and *Phoxopteris comptana*.
888. QUAINANCE, A. L. Three injurious insects. <Bull. No. 45, Fla. Agric. Exp. Sta., March, 1898, pp. 53-74, 3 pls.
Notes on *Eudamus proteus*, *Delphax maidis*, and *Hydrocampa cannalis*.
889. QUAINANCE, A. L. The strawberry Thrips and the onion Thrips. <Bull. No. 46, Fla. Agric. Exp. Sta., July, 1898, pp. 77-114, 12 figs.
Accounts of *Thrips tritici* and *T. tabaci*.
890. QUAINANCE, A. L. Insect enemies of tobacco in Florida.
<Bull. No. 48, Fla. Agric. Exp. Sta., October, 1898, pp. 154-188, 16 figs.
Treats of *Protoparce celeus*, *P. carolina*, *Dicyphus minimus*, *Lasioderma serri-corne*, *Gelechia picipelis*, *Agrotis ypsilon*, *Heliothis armiger*, *H. rhexia*, and grasshoppers.
891. QUAINANCE, A. L. Some injurious insects. <Ann. Rept. Fla. Exp. Sta. f. 1898 (1899), pp. 56-72, 4 pls.
Notes on *Prodenia commelinæ*, *Chionaspis minor*, *Asterolecanium pustulans*, *Mytilaspis alba*, *Tribolium ferrugineum*, *Blissus leucopterus*, *Aleurodes ruborum*, *Pyrausta theseusalis*, and *Pyrameis cardui*.
892. QUAINANCE, A. L. Some important insect enemies of cucurbits. <Bull. No. 45, Ga. Agric. Exp. Sta., October, 1899, pp. 25-50, 17 figs.
Treats of *Diabrotica vittata*, *Aphis gossypii*, *Margaronia nitidalis*, *M. hyalinata*, *Melittia satyriniformis*, and *Anasa tristis*.
893. QUAINANCE, A. L. Some insects of the year in Georgia.
<Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 56-59.
Brief notes on a number of species.
- QUAINANCE, A. L. See COCKERELL, T. D. A., and QUAINANCE, A. L.,
894. R——, J. White grubs. <Southern Farmer, September, 1897, pp. 12-13.
Success of trapping them with poisoned bran mash.
895. RANE, F. W. Growing muskmelons in the North. <Bull. No. 52, N. H. Agric. Exp. Sta., April, 1898, pp. 56-57.
Notes on *Diabrotica vittata* and *D. 12-punctata*.

896. RANE, F. W. Notes on the fertilization of muskmelons by insects. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 75-76.
Performed by certain insects.
897. READ, A. M. Cold storage for furs. <Financial Review, 29 September, 1899.
Temperature experiments in the killing of certain Dermestidæ.
898. RENNIE, R. W. Notes on insects of the year. Division No. 5, London district. <29th Ann. Rept. Ent. Soc. Ontario, 1898 (1899), pp. 91-92, 2 figs.
899. REYNOLDS, C. P. Killing lice on growing chicks. <Mich. Farmer, 8 July, 1898, p. 19.
900. REYNOLDS, E. Can potato bugs be exterminated? <Country Gentleman, 1 September, 1898, p. 683.
901. REYNOLDS, E. Exterminating potato bugs. <Country Gentleman, 6 July, 1899, p. 526.
902. RHODES, G. W. The air brake encounters a new enemy. <Proc. West. Railway Club, January, 1897, pp. 218-229.
Odynerus foraminatus closing up the opening.
903. RIDGELY, B. H. A new grapevine disinfectant. <U. S. Consular Reports, 1898, No. 209, pp. 267-269.
Use of phylloxerol in Switzerland.
904. ROBERTS, C. H. Habits of the pine-tree borer. <Country Gentleman, 6 January, 1898, p. 6.
Note on *Harmonia pini*.
905. ROBERTS, J. T. Fighting apple insects. <Rural New Yorker, 20 May, 1899, p. 384.
906. ROLFS, P. H. San Jose scale parasite. <Rept. Fla. Agric. Exp. Sta. f. 1896 (1897), pp. 49-50.
Notes on a fungus.
907. ROLFS, P. H. Injurious insects of the year. <9th Ann. Meet. Fla. State Hortic. Soc., 1896 (1897), pp. 96-99.
Notes on *Aspidiotus perniciosus*, *Dactylopius calceolaria*, *Chilo saccharalis*, and *Anthonomus grandis*.
908. ROLFS, P. H. A brief study in insect dissemination. <9th Ann. Meet. Fla. State Hortic. Soc., 1896 (1897), pp. 99-100.
909. ROLFS, P. H. Advancements made in insecticides. <9th Ann. Meet. Fla. State Hortic. Soc., 1896 (1897), pp. 101-102.
910. ROLFS, P. H. A visit to the gypsy moth commission. <9th Ann. Meet. Fla. State Hortic. Soc., 1896 (1897), pp. 102-105.
911. ROLFS, P. H. The San Jose scale disease. <Garden and Forest, 2 June, 1897, pp. 217-218.

912. ROLFS, P. H. A fungus disease of the San Jose scale. <Bull. No. 41, Fla. Agric. Exp. Sta., August, 1897, pp. 519-536, 2 pls.
Notes on *Sphaerostilbe coccophila*.
913. ROLFS, P. H. A fungus disease of the San Jose scale. <Proc. Ga. State Hortic. Soc., 1897, pp. 33-35.
914. ROLFS, P. H. Cucumber, melon, and tomato pests. <Fla. Farmer, 15 January, 1898, 2 figs.
Notes on *Melittia ceto*, *Margaronia nitidalis*, *M. hyalinata*, and *Heliothis armiger*.
915. ROLFS, P. H. Diseases of the tomato. <Bull. No. 47, Fla. Agric. Exp. Sta., September, 1898, pp. 141-145.
Notes on *Heliothis armiger* and *Phytoptus* causing a hairy whiteness of the buds.
916. ROLFS, P. H. Orange diseases and insects. <11th Ann. Meet. Fla. State Hortic. Soc., 1898, pp. 34-38, 4 figs.
Notes on *Dysdercus suturellus*, *Thrips tritici*, *Trypeta ludens*, *Tetranychus sex-maculatus*, and *Lecanium hesperidum*.
917. ROLFS, P. H. Injurious insects and diseases of the year. <11th Ann. Meet. Fla. State Hortic. Soc., 1898, pp. 85-93, 11 figs.
Notes on *Eudamus proteus*, *Hydrocampa cannalis*, *Pumera vineta*, and *Aspidiotus perniciosus*.
918. ROLFS, P. H. Pineapple fertilizers. <Bull. No. 50, Fla. Agric. Exp. Sta., May, 1899, pp. 99-102.
Notes on *Stigmæus* sp., *Diaspis bromeliæ*, and *Dactylopius citri* as injuring pineapple.
919. RUDD, W. N. Freezing and steaming soil to destroy eel-worms. <Amer. Florist, 10 June, 1899, pp. 1333-1334.
920. SANDERSON, E. D. Some common plant lice of the orchard and garden. <Southern Ruralist, April, 1897.
921. SANDERSON, E. D. Some foes of the cabbage. <I. Southern Ruralist, December, 1897. II. *Ibid.*, January, 1898.
Treats of various species.
922. SANDERSON, E. D. The Western corn root-worm. <Country Gentleman, 20 January, 1898, p. 53, 2 figs.
Treats of *Diabrotica longicornis*.
923. SANDERSON, E. D. Cutworms. <Fla. Farmer, 19 February, 1898. <Southern Ruralist, February, 1898.
A general article.
924. SANDERSON, E. D. Some melon-patch thieves. <Southern Ruralist, March, 1898. <Fla. Farmer, 26 February, 1898.
Notes on *Diabrotica vittata*, *D. 12-punctata*, *Epilachna borealis*, *Margaronia nitidalis*, *M. hyalinata*, *Melittia ceto*, *Leptoglossus phyllopus*, *Anasa tristis*, and *Aphis gossypii*.

925. SANDERSON, E. D. The cotton bollworm. <Southern Ruralist, April, 1898. <Fla. Farmer, 16 April, 1898.
926. SANDERSON, E. D. Entomology. <Country Gentleman, 21 July, 1898, pp. 573-574, 1 fig.
Notes on *Elaphidion villosum*, *Cicada tredecim*, and *Eriocampoides cerasi*.
927. SANDERSON, E. D. Insects injuring American cereals. <Farmers' Review, September, October, November, and December, 1898.
General article.
928. SANDERSON, E. D. Attacking the San Jose scale. <Country Gentleman, 22 September, 1898, pp. 753-754.
Deals with the use of hydrocyanic-acid gas.
929. SANDERSON, E. D. Insects of the sugar beet. <Practical Farmer, 24 September, 1898, 8 figs.
General article.
930. SANDERSON, E. D. Do not kill them. <Farm and Fireside, 5 parts, September, October, and November, 1898.
Treats of predaceous and parasitic insects.
931. SANDERSON, E. D. San Jose scale. <Amer. Fruit Growers' Jour., 10 October, 1898, 2 figs.
932. SANDERSON, E. D. Fumigating for the San Jose scale. <Southern Ruralist, November, 1898.
933. SANDERSON, E. D. The Mexican cotton boll weevil. <Texas Farm and Ranch, 19 November, 1898.
934. SANDERSON, E. D. The cabbage Plusia. <Practical Farmer, 3 December, 1898, 1 fig.
935. SANDERSON, E. D. The potato stalk borer. <Natl. Stockman and Farmer, 8 December, 1898.
936. SANDERSON, E. D. Potato scab and insects. <Amer. Agriculturist, 9 December, 1898.
Notes on millipedes, *Epidapus scabies*, and *Epitrix cucumeris*.
937. SANDERSON, E. D. Destroy the bag-worm. <Mich. Farmer, 17 December, 1898, 2 figs.
938. SANDERSON, E. D. A winter attack on the bugs. <Agric. Epitomist, December, 1898.
939. SANDERSON, E. D. Sweet potato insects. <Bull. No. 59, Md. Agric. Exp. Sta., January, 1899, pp. 129-146, 16 figs.
An account of the various species.
940. SANDERSON, E. D. Winter spraying for pear insects. <Farm, Field and Fireside, 14 January, 1899.
941. SANDERSON, E. D. "Weevil" in grain. <Texas Farm and Ranch, 14 January, 1899.
Notes on the two Calandras.

942. SANDERSON, E. D. The tent caterpillar. <Farm and Fireside, 15 January, 1899, 1 fig.
943. SANDERSON, E. D. The clover mite. <Farm and Fireside, 15 January, 1899.
944. SANDERSON, E. D. The grape-vine flea-beetle. <Farm News, April, 1899.
945. SANDERSON, E. D. Three melon beetles. <Tenn. Farmer, 29 April, 1899, 3 figs.
946. SANDERSON, E. D. Insecticides for biting insects. <Farm and Fireside, 1 May, 1899.
947. SANDERSON, E. D. Spraying. <Farm News, May, 1899.
948. SANDERSON, E. D. Minor pests of the cotton plant. <Cotton Planters' Journal, May, 1899, 4 figs.
Notes on cutworms, *Ataxia crypta*, *Homalodisca coagulata*, *Dysdercus suturalis*, and *Aræcerus fasciculatus*.
949. SANDERSON, E. D. Asparagus beetles. <Farm News, May, 1899.
950. SANDERSON, E. D. A destroyer of asparagus beetles. <Amer. Gardening, 13 May, 1899, 1 fig.
Treats of *Prionidus cristatus*.
951. SANDERSON, E. D. The harlequin cabbage bug. <Amer. Agriculturist, 20 May, 1899, p. 648, 1 fig.
952. SANDERSON, E. D. The strawberry weevil. <Natl. Stockman and Farmer, 25 May, 1899, 2 figs.
953. SANDERSON, E. D. Controlling the rose slug. <Orange Judd Farmer, 27 May, 1899, 2 figs.
Treats of *Monostegia rosæ*.
954. SANDERSON, E. D. Cock's-comb elm gall. <Amer. Gardening, 3 June, 1899, 1 fig.
Notes on *Colopha ulmicola*.
955. SANDERSON, E. D. Ladybird beetles vs. the San Jose scale. <Amer. Gardening, 10 June, 1899, 1 fig.
956. SANDERSON, E. D. Sweet potato beetles. <Country Gentleman, 29 June, 1899, p. 514, 3 figs.
957. SANDERSON, E. D. Remedies for sugar-beet insects. <Mich. Sugar Beet, 1899, p. 1, 4 figs. <The Sugar Beet, June, 1899.
General account.
958. SANDERSON, E. D. The black peach louse. <Agric. Epitomist, June, 1899, 2 figs.
959. SANDERSON, E. D. The cotton worm. <Cotton Planters' Journal, June, 1899, 4 figs.

960. SANDERSON, E. D. Remedy for the San Jose scale. <Farm and Fireside, 1 July, 1899.
Advocates use of whale-oil soap.
961. SANDERSON, E. D. Entomology. <Amer. Gardening, 1 July, 1899.
Notes on *Typhlocyba vitifex*, *Monophadnus rubi*, and *Eudemis botrana*.
962. SANDERSON, E. D. Are ants injuring trees? <Amer. Agriculturist, 1 July, 1899.
963. SANDERSON, E. D. The catalpa sphinx. <Amer. Agriculturist, 8 July, 1899, 1 fig.
964. SANDERSON, E. D. New woolly louse on maples. <Amer. Gardening, 22 July, 1899, 1 fig.
Notes on *Pemphigus acerifolii*.
965. SANDERSON, E. D. Some potato insects. <Farm News, July, 1899.
Notes on blister beetles and *Lema trilineata*.
966. SANDERSON, E. D. Injuries done by insects in the country. <Amer. Farmers' Magazine, July, 1899.
967. SANDERSON, E. D. The cotton boll worm. <Cotton Planters' Journal, July, 1899.
968. SANDERSON, E. D. Would-be San Jose scales. <Farm and Fireside, 1 August, 1899, 3 figs.
Several scale insects and eggs of a katydid.
969. SANDERSON, E. D. The grape-leaf trumpet-gall. <Amer. Gardening, 5 August, 1899, 1 fig.
Note on *Cecidomyia viticola*.
970. SANDERSON, E. D. Trap crops for insect pests. <New England Homestead, 12 August, 1899.
971. SANDERSON, E. D. The fall army-worm. <Farm and Fireside, 12 August, 1899.
972. SANDERSON, E. D. The bag-worm, a pest of arbor vitæ. <Amer. Gardening, 19 August, 1899, 2 figs.
973. SANDERSON, E. D. Blister beetles. <Beet Sugar Gazette, August, 1899, 2 figs.
974. SANDERSON, E. D. Beneficial insects. <Amer. Farmers' Magazine, August, 1899, 6 figs.
975. SANDERSON, E. D. The peach mite. <Green's Fruit Grower, August, 1899.
976. SANDERSON, E. D. Flea beetles. <Agric. Epitomist, August, 1899, 2 figs.
977. SANDERSON, E. D. Two new dangerous scales. <Western Fruit Grower, August, 1899.
Notes on *Aspidiotus ostreæformis* and *Diaspis amygdali*.

978. SANDERSON, E. D. Cabbage worms. <National Rural, 21 September, 1899, 4 figs.
979. SANDERSON, E. D. The buffalo tree hopper. <National Rural, September, 1899, 2 figs.
980. SANDERSON, E. D. The Hessian fly. <Farm and Fireside, 1 October, 1899, 2 figs.
981. SANDERSON, E. D. Clover insects. <National Rural, 2 November, 1899, 4 figs.
982. SANDERSON, E. D. Tobacco insects. <Amer. Farmers' Magazine, November, 1899, pp. 353-358; December, 1899, pp. 425-429, 13 figs.
983. SANDERSON, E. D. The Hessian fly. <Press Bull. No. 2, Del. Agric. Exp. Sta., 1 December, 1899.
984. SANDERSON, E. D. The locust-leaf miner. <Amer. Gardening, 1899, p. 672.
Note on *Odontota dorsalis*.
985. SARGENT, C. S. Legislation against plant pests. <Garden and Forest, 21 July, 1897, p. 281.
986. SAUNDERS, D. A. Four destructive insects. <Bull. No. 57, S. Dak. Agric. Exp. Sta., April, 1898, pp. 35-52, 8 figs.
Notes on *Lioderma uhleri*, *Melanoplus spretus*, *Siphonophora avenæ*, and *Epicauta maculata*.
987. SAUNDERS, W. Destruction of scale on fruit tree branches. <Meehan's Monthly, June, 1897, p. 116.
Use of lime wash.
988. SCHANNO, E. Spraying for San Jose scale. <Oreg. Agriculturist and Rural Northwest, 15 February, 1899, p. 162.
989. SCHWARZ, E. A. The periodical cicada in 1897. <Cir. No. 22, s. s., Div. Ent., U. S. Dept. Agric., May, 1897, pp. 4.
Localities for brood XV, Septendecim, and Brood VI, Tredecim, in 1897.
990. SCOTT, W. A chrysanthemum maggot. <Weekly Florist's Review, 29 September, 1898.
No determination of the insect.
991. SCOTT, W. M. To distinguish the English walnut scale from the San Jose scale. <Ann. Rept. Dept. Agric. Ga. f. 1898, Vol. XXIV, p. 54.
992. SCOTT, W. M. Report of the entomologist. <Ann. Rept. Dept. Agric. Ga. f. 1898, pp. 500-531.
Treats of *Aspidiotus perniciosus*, *A. forbesi*, *Diaspis amygdali*, *Murgantia histrionica*, *Tetranychus telarius*, and *Aspidiotus juglans-regiæ*.
993. SCOTT, W. M. Kerosene treatment of San Jose scale. <Amer. Agriculturist, 21 January, 1899.

994. SCOTT, W. M. Dangerous pests proscribed by the Board, with remedial suggestions. <Bull. No. 1, Ga. State Bd. Entom., April, 1899, pp. 32, 7 figs.
Treats of *Aspidiotus perniciosus*, *Diaspis amygdali*, and *Hellula undalis*.
995. SCOTT, W. M. Fatal temperature for some Coccids in Georgia. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 82-85.
996. SENGER, J. C. Killing ticks on cattle. <Rural New Yorker, 16 January, 1897, p. 37.
997. SESSIONS, W. R. The war against the gypsy moth. <Rept. N. H. Bd. Agric. f. 1896 (1897), pp. 123-145.
998. SHEPPERD, J. H. Dip your sheep. <Amer. Agriculturist, 16 April, 1898, p. 491.
999. SIBLEY, F. O. Fighting currant worms. <Colman's Rural World, 4 May, 1899.
1000. [SIRRINE, F. A.] Entomological investigations. <Bull. No. 115, N. Y. Agric. Exp. Sta., January, 1897 (Director's Rept. f. 1896), pp. 69-71.
Remedies for various insects.
1001. SIRRINE, F. A. A practical method of fighting cutworms in the onion field. <Bull. No. 120, N. Y. State Agric. Exp. Sta., March, 1897, pp. 14.
1002. SIRRINE, F. A. Note on the probable life-history of *Crepidodera* (*Epitrix*) *cucumeris* Harr. <Proc. Iowa Acad. Sci. f. 1896 (1897), pp. 170-172.
1003. SIRRINE, F. A. Report of the entomologists, Part II. <15th Ann. Rept. N. Y. State Agric. Exp. Sta., f. 1896 (1897), pp. 608-635, 9 pls.
Treats of *Diabrotica vittata*, *Doryphora 10-lineata*, *Melittia ceto*, *Thrips tabaci*, *Tetranychus telarius*, *Diplosis pyrivora*, *Plusia brassicae*, cutworms, *Carneades messoria*, and *Hadena illata*.
1004. SIRRINE, F. A. Girdling for canker-worm. <Amer. Gardening, 18 December, 1897.
1005. SIRRINE, F. A. A spraying mixture for cauliflower and cabbage worms. <Bull. No. 144, N. Y. State Agric. Exp. Sta., September, 1898, pp. 26-47, 6 pls.
Use of resin-lime mixture against *Pieris rapæ* and *Plusia brassicae*.
1006. SIRRINE, F. A. Combating the striped beetle on cucumbers. <Bull. No. 158, N. Y. State Agric. Exp. Sta., May, 1899, pp. 32, 2 pls.
Detailed account of experiments in fighting *Diabrotica vittata*.
1007. SIRRINE, F. A. Report of committee on insects. <Eastern N. Y. Hortic., April, 1899.
Treats of a number of species.

1008. SKINNER, H. [Face-mites: black-heads.] <Entom. News, May, 1897, p. 115.
Calls attention to the fact that *Demodex folliculorum hominis* is probably not the cause of black-heads in the face.
1009. SLINGERLAND, M. V. Entomology. <Proc. 42d Ann. Meet. West. N. Y. Hortic. Soc. <Trans. N. Y. State Agric. Soc. f. 1896 (1897), pp. 588-600.
Notes on pistol-case bearer, codling moth, peach borer, army worm, insecticides, spraying apparatus, and legislation.
1010. SLINGERLAND, M. V. Root galls on peach roots. <Rural New Yorker, 16 January, 1897, p. 37.
1011. SLINGERLAND, M. V. When to kill the codling moth. <Rural New Yorker, 30 January, 1897, p. 67.
1012. SLINGERLAND, M. V. Various washes for fruit trees. <Rural New Yorker, 30 January, 1897, p. 69.
1013. SLINGERLAND, M. V. Sulphate of iron for spraying. <Rural New Yorker, 20 February, 1897, p. 115.
1014. SLINGERLAND, M. V. Some facts about the codling moth. <Rural New Yorker, 20 February, 1897, pp. 115-116.
1015. SLINGERLAND, M. V. The blueberry span-worm (*Diastictis inceptaria* Walk.) and the bumble flower-beetle (*Euphoria inda* L.). <Can. Entom., March, 1897, pp. 49-52, 1 pl.
On the life history of the species and the injury of the former to blueberries.
1016. SLINGERLAND, M. V. Worms in soil—Plum borers. <Rural New Yorker, 13 March, 1897, p. 175.
1017. SLINGERLAND, M. V. Apple trees least susceptible to borer. <Rural New Yorker, 3 April, 1897, p. 223.
1018. SLINGERLAND, M. V. Protection against borers. <Rural New Yorker, 3 April, 1897, p. 223.
Use of various substances.
1019. SLINGERLAND, M. V. The strawberry leaf roller. <Rural New Yorker, 3 April, 1897, p. 223.
1020. SLINGERLAND, M. V. Plant lice on gooseberries. <Rural New Yorker, 10 April, 1897, p. 242.
1021. SLINGERLAND, M. V. Inoculating trees to kill insects. <Rural New Yorker, 10 April, 1897, p. 241.
1022. SLINGERLAND, M. V. The scurvy bark louse on apple trees. <Rural New Yorker, 17 April, 1897, p. 260.
1023. SLINGERLAND, M. V. Pine tar on apple trees. <Rural New Yorker, 17 April, 1897, p. 260.
1024. SLINGERLAND, M. V. The cost of spraying grapes. <Rural New Yorker, 24 April, 1897, p. 277.

1025. SLINGERLAND, M. V. The army worm in New York. <Bull. No. 133, Cornell Agric. Exp. Sta., April, 1897, pp. 233-258, 5 figs.
An account of the ravages in that State, with remedies.
1026. SLINGERLAND, M. V. Life habits of twig borers. <Rural New Yorker, 1 May, 1897, p. 293.
1027. SLINGERLAND, M. V. All about whale-oil soap. <Rural New Yorker, 8 May, 1897, p. 308.
1028. SLINGERLAND, M. V. Katydid didn't do a thing to the twigs. <Rural New Yorker, 8 May, 1897, p. 309.
1029. SLINGERLAND, M. V. Black lice on apple trees. <Rural New Yorker, 8 May, 1897, p. 309.
Note on *Aphis mali*.
1030. SLINGERLAND, M. V. Oyster-shell bark-louse. <Rural New Yorker, 8 May, 1897, p. 309.
1031. SLINGERLAND, M. V. Onion thrips on Long Island. <Rural New Yorker, 8 May, 1897, p. 309.
1032. SLINGERLAND, M. V. Will the army worm come this year? <Amer. Agriculturist, 8 May, 1897, p. 582.
1033. SLINGERLAND, M. V. Canker worms in Kansas. <Rural New Yorker, 15 May, 1897, p. 324.
1034. SLINGERLAND, M. V. Root lice on apple trees. <Rural New Yorker, 15 May, 1897, p. 323.
Note on *Schizoneura larigera*.
1035. SLINGERLAND, M. V. Great danger from San Jose scale. <Rural New Yorker, 29 May, 1897, p. 356.
1036. SLINGERLAND, M. V. Life-history of the plum curculio. <Rural New Yorker, 29 May, 1897, p. 354, 1 fig.
1037. SLINGERLAND, M. V. What is "Pure Paris Green?" <Rural New Yorker, 5 June, 1897, p. 373.
1038. SLINGERLAND, M. V. The dangerous strawberry weevil. <Rural New Yorker, 5 June, 1897, pp. 372-373.
1039. SLINGERLAND, M. V. A patent "tree wash." <Rural New Yorker, 12 June, 1897, p. 388.
1040. SLINGERLAND, M. V. Killing the horn fly. <Rural New Yorker, 12 June, 1897, p. 388.
1041. SLINGERLAND, M. V. Life and work of the pear slug. <Rural New Yorker, 12 June, 1897, p. 388, 1 fig.
1042. SLINGERLAND, M. V. Insects in cow peas. <Rural New Yorker, 19 June, 1897, p. 405.
The Southern pea weevil.
1043. SLINGERLAND, M. V. Work of the currant louse. <Rural New Yorker, 19 June, 1897, p. 405.

1044. SLINGERLAND, M. V. Lice on plum and apple trees. <Rural New Yorker, 26 June, 1897, p. 420.
1045. SLINGERLAND, M. V. Grape-vine flea-beetles. <Rural New Yorker, 26 June, 1897, p. 420.
1046. SLINGERLAND, M. V. Plum curculio and its eggs. <Rural New Yorker, 26 June, 1897, p. 420.
1047. SLINGERLAND, M. V. Do 17-year locusts damage fruit trees? <Rural New Yorker, 3 July, 1897, p. 437.
Damage not of great importance.
1048. SLINGERLAND, M. V. Galls on grape-vines. <Rural New Yorker, 10 July, 1897, p. 453.
1049. SLINGERLAND, M. V. "Gold bugs" on sweet potatoes. <Rural New Yorker, 24 July, 1897, p. 485.
1050. SLINGERLAND, M. V. Thorough cultivation and potato bugs. <Rural New Yorker, 24 July, 1897, p. 485.
1051. SLINGERLAND, M. V. The cottony maple scale. <Rural New Yorker, 24 July, 1897, p. 485.
1052. SLINGERLAND, M. V. The gypsy moth in New York State. <Rural New Yorker, 31 July, 1897, p. 499.
Turns out to be *Clisiocampa disstria*.
1053. SLINGERLAND, M. V. The predaceous diving beetle. <Rural New Yorker, 31 July, 1897, p. 501, 1 fig.
Dytiscus sp.
1054. SLINGERLAND, M. V. Pear Psylla and lice on apples. <Rural New Yorker, 7 August, 1897, p. 517.
1055. SLINGERLAND, M. V. The clover mite and fruit. <Rural New Yorker, 7 August, 1897, p. 517.
1056. SLINGERLAND, M. V. Life-history of the silk-worm. <Rural New Yorker, 14 August, 1897, pp. 529-530, 1 fig.
1057. SLINGERLAND, M. V. The melon and cucumber borers. <Rural New Yorker, 21 August, 1897, p. 548.
The two species of *Eudiophtis*.
1058. SLINGERLAND, M. V. A corn-eating maggot. <Rural New Yorker, 11 September, 1897, p. 596.
Note on *Phorbia fusciceps*.
1059. SLINGERLAND, M. V. Destroying a wasp's nest. <Rural New Yorker, 16 October, 1897, p. 676.
1060. SLINGERLAND, M. V. The chinch bug in New York State. <Rural New Yorker, 16 October, 1897, p. 676.
1061. SLINGERLAND, M. V. The story of the bumble-bee. <Rural New Yorker, 23 October, 1897, pp. 692-693.
1062. SLINGERLAND, M. V. Pomace flies hard to kill. <Rural New Yorker, 30 October, 1897, p. 709.

1063. SLINGERLAND, M. V. A chapter on wireworms. <Rural New Yorker, 6 November, 1897, p. 725.
1064. SLINGERLAND, M. V. Fight the San Jose scale this fall. <Rural New Yorker, 13 November, 1897, p. 740.
1065. SLINGERLAND, M. V. Life changes of the peach borer. <Rural New Yorker, 11 December, 1897, p. 804.
Notes also on shot-hole borer and San Jose scale.
1066. SLINGERLAND, M. V. Green lice on cabbage. <Rural New Yorker, 11 December, 1897, p. 804.
1067. SLINGERLAND, M. V. New facts about the codling moth. <Garden and Forest, No. 468, 1897, pp. 58-59.
1068. SLINGERLAND, M. V. The codling moth. <Bull. No. 142, Cornell Univ. Agric. Exp. Sta., January, 1898, pp. 67, 21 figs.
A detailed account of the insect.
1069. SLINGERLAND, M. V. Bisulphide of carbon for peach borers. <Rural New Yorker, 15 January, 1898, p. 39.
Not recommended for the East.
1070. SLINGERLAND, M. V. What to do for woolly aphis. <Rural New Yorker, 5 February, 1898, p. 84.
1071. SLINGERLAND, M. V. Bisulphide of carbon for melon lice. <Rural New Yorker, 19 February, 1898, p. 121.
1072. SLINGERLAND, M. V. Some insect pests disposed of. <Rural New Yorker, 5 March, 1898, p. 164.
Note on codling moth and muriate of potash.
1073. SLINGERLAND, M. V. A dip for the San Jose scale. <Rural New Yorker, 12 March, 1898, p. 180, 1 fig.
1074. SLINGERLAND, M. V. Kill codling moths in the cellar. <Rural New Yorker, 26 March, 1898, p. 221.
1075. SLINGERLAND, M. V. The powder post and its work. <Rural New Yorker, 2 April, 1898, p. 240.
Note on *Lyctus unipunctatus*.
1076. SLINGERLAND, M. V. To prevent canker worms from crawling. <Rural New Yorker, 2 April, 1898, p. 240.
1077. SLINGERLAND, M. V. The tobacco worm; a curious mistake. <Rural New Yorker, 16 April, 1898, p. 281.
Note on *Phlegethontius celeus*.
1078. SLINGERLAND, M. V. Facts about plant-lice. <Rural New Yorker, 23 April, 1898, p. 301.
Aphis chrysanthemicola and *Siphonophora chrysanthemicola* on chrysanthemums.
1079. SLINGERLAND, M. V. The oyster-shell bark-louse. <Rural New Yorker, 30 April, 1898, p. 321.
1080. SLINGERLAND, M. V. Killing the codlin moth. <Nebraska Farmer, 5 May, 1898, p. 282.

1081. SLINGERLAND, M. V. Mixing kerosene emulsion and Bordeaux mixture. <Rural New Yorker, 7 May, 1898, p. 336.
1082. SLINGERLAND, M. V. Insect enemies of potato beetles. <Rural New Yorker, 21 May, 1898, p. 351, 1 fig.
Notes on *Doryphora 10-lineata*.
1083. SLINGERLAND, M. V. How to fight the apple borer. <Rural New Yorker, 28 May, 1898, p. 385.
1084. SLINGERLAND, M. V. Grape leaf-hopper. <Rural New Yorker, 4 June, 1898, p. 401.
1085. SLINGERLAND, M. V. Fighting the pear Psylla. <Rural New Yorker, 11 June, 1898, p. 417.
1086. SLINGERLAND, M. V. The snowy tree-cricket. <Rural New Yorker, 11 June, 1898, p. 417.
1087. SLINGERLAND, M. V. The steely beetle on grape vines. <Rural New Yorker, 25 June, 1898, pp. 448-449.
Notes on *Haltica chalybea*.
1088. SLINGERLAND, M. V. Biting and sucking insects. <Rural New Yorker, 16 July, 1898, p. 496.
Notes on plant lice.
1089. SLINGERLAND, M. V. A strange insect—the fish moth. <Rural New Yorker, 16 July, 1898, p. 497.
1090. SLINGERLAND, M. V. The quince curculio. <Bull. No. 148, Cornell Univ. Agric. Exp. Sta., July, 1898, pp. 695-715, 10 figs.
Treats of *Conotrachelus crataegi*.
1091. SLINGERLAND, M. V. What katydid doesn't do. <Rural New Yorker, 13 August, 1898, p. 561.
Eggs on pear twig.
1092. SLINGERLAND, M. V. Potato stalk weevil. <Rural New Yorker, 27 August, 1898, p. 593.
Notes on *Trichobaris trinotata*.
1093. SLINGERLAND, M. V. Gasoline and clothes-moths. <Rural New Yorker, 10 September, 1898, p. 628.
1094. SLINGERLAND, M. V. Scale insects on California fruit. <Rural New Yorker, 17 September, 1898, p. 640.
Notes on *Aspidiotus aurantii* and *A. perniciosus*.
1095. SLINGERLAND, M. V. How the curculio mounts the plum trees. <Rural New Yorker, 24 September, 1898, p. 656.
1096. SLINGERLAND, M. V. How to handle the harlequin bug. <Rural New Yorker, 24 September, 1898, p. 656.
1097. SLINGERLAND, M. V. Mites on a chestnut leaf. <Rural New Yorker, 8 October, 1898, p. 689.

1098. SLINGERLAND, M. V. Mites that are mighty troublesome. <Rural New Yorker, 8 October, 1898, p. 689.
Notes on *Bryobia*.
1099. SLINGERLAND, M. V. Insects in stored grain. <Rural New Yorker, 15 October, 1898, p. 705.
1100. SLINGERLAND, M. V. An insect in blackberry canes. <Rural New Yorker, 15 October, 1898, p. 705.
Notes on *Bembecia marginata*.
1101. SLINGERLAND, M. V. Killing mealy bugs under glass. <Rural New Yorker, 5 November, 1898, p. 753, 1 fig.
1102. SLINGERLAND, M. V. A worm that "has worms." <Rural New Yorker, 19 November, 1898, p. 785.
Notes on parasitized tomato caterpillar.
1103. SLINGERLAND, M. V. The grain moth in wheat. <Rural New Yorker, 3 December, 1898, p. 817.
Note on *Gelechia cerealella*.
1104. SLINGERLAND, M. V. The grape-vine flea-beetle. <Bull. No. 157, Cornell Univ. Agric. Exp. Sta., December, 1898, pp. 189-213, 10 figs.
A full account, with bibliography.
1105. SLINGERLAND, M. V. Some new notions about some old insects. <Trans. Mass. Hortic. Soc., Pt. I, 1898 (1899).
Notes on codling moth and peach-tree borer.
1106. SLINGERLAND, M. V. Insects that like whisky. <Rural New Yorker, 21 January, 1899, p. 38.
Boring in a cask.
1107. SLINGERLAND, M. V. Insect pests in 1898. <Rural New Yorker, 4 February, 1899, p. 74.
Notes on pear *Psylla*, tent-caterpillars, cankerworms, and grapevine flea-beetle.
1108. SLINGERLAND, M. V. How insects spend the winter. <Rural New Yorker, 28 January, 1899, p. 35; 18 February, 1899, p. 116.
1109. SLINGERLAND, M. V. Ants on apple trees. <Rural New Yorker, 18 March, 1899, p. 202.
1110. SLINGERLAND, M. V. Peach borer. Kerosene and water. <Rural New Yorker, 25 March, 1899, p. 222.
1111. SLINGERLAND, M. V. Currant fruit worm. <Rural New Yorker, 25 March, 1899, p. 222.
Probably *Dakriona convolutella*.
1112. SLINGERLAND, M. V. Insect pests in 1898. <Proc. West. N. Y. Hortic. Soc., April, 1899, pp. 7.
Notes on *Psylla pyricola*, *Agilus anxius*, *Haltica chalybea*, cankerworms, and tent caterpillars.

1113. SLINGERLAND, M. V. Making arsenite of lime. <Rural New Yorker, 29 April, 1899, p. 322.
1114. SLINGERLAND, M. V. Killing plant-lice in a greenhouse. <Rural New Yorker, 6 May, 1899, p. 342.
1115. SLINGERLAND, M. V. Work of the buffalo tree-hopper. <Rural New Yorker, 13 May, 1899, p. 362.
1116. SLINGERLAND, M. V. Green lice on apple trees. <Rural New Yorker, 13 May, 1899, p. 361.
Notes on *Aphis mali*.
1117. SLINGERLAND, M. V. The enemies of potatoes and how to combat them. <Amer. Agriculturist, 13 May, 1899, p. 612, 3 figs. <Orange Judd Farmer, 13 May, 1899.
Notes on *Doryphora 10-lineata* and *Epitrix cucumeris*.
1118. SLINGERLAND, M. V. Various bugs. <Rural New Yorker, 20 May, 1899, p. 382.
Principally on cutworms.
1119. SLINGERLAND, M. V. Emergency report on tent caterpillars. <Bull. No. 170, Cornell Univ. Agric. Exp. Sta., May, 1899, pp. 557-564, 4 figs.
Deals with *Clisiocampa disstria*.
1120. SLINGERLAND, M. V. The strawberry crown-borer. <Rural New Yorker, 10 June, 1899, p. 433.
1121. SLINGERLAND, M. V. The tent-caterpillar; spraying in bloom. <Rural New Yorker, 17 June, 1899, p. 449.
1122. SLINGERLAND, M. V. Music and caterpillars. <Rural New Yorker, 1 July, 1899, p. 479.
1123. SLINGERLAND, M. V. Tobacco and potato beetles. <Rural New Yorker, 22 July, 1899, p. 527.
Potatoes inoculated with tobacco will not therefore be free from beetles.
1124. SLINGERLAND, M. V. Cold and San Jose scale. <Rural New Yorker, 29 July, 1899, p. 544.
1125. SLINGERLAND, M. V. A blister beetle. <Rural New Yorker, 5 August, 1899, p. 560.
Notes on *Epicauta cinerea*.
1126. SLINGERLAND, M. V. The blister mite. <Rural New Yorker, 19 August, 1899, p. 592.
1127. SLINGERLAND, M. V. A picture of the kissing bug. <Rural New Yorker, 26 August, 1899, p. 605, 3 figs.
Treats of *Redurius personatus*.
1128. SLINGERLAND, M. V. Tent caterpillars in traps. <Rural New Yorker, 2 September, 1899.
Experiments on apple tent caterpillars.
1129. SLINGERLAND, M. V. Ants and a pear tree. <Rural New Yorker, 9 September, 1899, p. 641.

1130. SLINGERLAND, M. V. Killing ants in the soil. <Rural New Yorker, 9 September, 1899, p. 641.
1131. SLINGERLAND, M. V. A new cherry pest. <Rural New Yorker, 16 September, 1899, p. 654, 1 fig.
Note on *Rhagoletis cingulata*.
1132. SLINGERLAND, M. V. The cherry fruit-fly, a new cherry pest. <Bull. No. 172, Cornell Univ. Agric. Exp. Sta., September, 1899, pp. 23-41, 7 figs.
Account of maggot believed to be that of *Rhagoletis cingulata*.
1133. SLINGERLAND, M. V. Cheap and easy spraying. <Rural New Yorker, 23 September, 1899, p. 672.
1134. SLINGERLAND, M. V. Is the honey-bee a benefactor? <Rural New Yorker, 28 October, 1899, pp. 749-750, 1 fig.
1135. SLINGERLAND, M. V. The peach-tree borer. <Bull. No. 176, Cornell Univ. Agric. Exp. Sta., December, 1899, pp. 157-233, 15 figs.
A detailed account, with remedies.
1136. SMILEY, C. W. The cochineal insect. <Amer. Month. Mier. Journ., February, 1897, pp. 62-63.
1137. SMITH, F. J. Arsenate of lead; its manufacture and chemical composition. <Rept. State Bd. Agric. (Mass.) on extermination of the gypsy moth, January, 1898, pp. 57-59.
1138. SMITH, J. B. Report of the entomological department of the New Jersey Agricultural College Experiment Station for 1896. <Ann. Rept. N. J. Agric. Exp. Sta. f. 1896 (1897), pp. 431-563, 16 figs.
Treats of a number of insects, more particularly of San Jose scale.
1139. SMITH, J. B. Dendrolene. <Garden and Forest, 6 January, 1897, p. 8.
1140. SMITH, J. B. Winter work against insects—I. <Orange Judd Farmer, 23 January, 1897, 4 figs.
1141. SMITH, J. B. The harlequin cabbage bug and the melon plant louse. <Bull. No. 121, N. J. Agric. Exp. Sta., March, 1897, pp. 14, 1 fig.
A full account of each species.
1142. SMITH, J. B. The orange fruit worm. <Garden and Forest, 17 March, 1897, p. 108.
1143. SMITH, J. B. Remedy for onion maggot. <Amer. Agriculturist, 10 April, 1897.
1144. SMITH, J. B. The onion maggot. <Entom. News, May, 1897, pp. 101-104.
1145. SMITH, J. B. Insects injurious to squashes. <Orange Judd Farmer, 5 June, 1897; 12 June, 1897.

1146. SMITH, J. B. Insects injurious to squashes. <Amer. Agriculturist, 5 June, 1897, p. 682, 2 figs.; 12 June, 1897; 26 June, 1897, 2 figs.
Notes on *Diabrotica vittata*, cutworms, *Anasa tristis*, *Epilachna borealis*, and *Melittia ceto*.
1147. SMITH, J. B. The elm-leaf beetle. <Garden and Forest, 25 August, 1897, pp. 336-337.
1148. SMITH, J. B. The influence of environment on the life history of insects. <Garden and Forest, 25 August, 1897, p. 334.
Mostly on habits of codling moth.
1149. SMITH, J. B. Treatment for the San Jose scale. <Cir. N. J. Agric. Exp. Sta., September, 1897.
1150. SMITH, J. B. The San Jose scale scare—I. <Amer. Agriculturist, 30 October, 1897, p. 414. II. *Ibid*, 6 November, 1897, p. 435.
1151. SMITH, J. B. The San Jose scale and how it may be controlled. <Bull. No. 125, N. J. Agric. Exp. Sta., November, 1897, pp. 16, 1 fig.
1152. SMITH, J. B. Report of the entomological department of the New Jersey Agricultural College Experiment Station for 1897. <Ann. Rept. N. J. Agric. Exp. Sta. f. 1897 (1898), pp. 397-492, 19 figs.
Treats of a large number of species.
1153. SMITH, J. B. Report of investigations on the San Jose scale. <24th Ann. Rept. N. J. State Bd. Agric., f. 1896-97 (1897), pp. 113-134, 17 figs.
Experiments, and study of predaceous insects.
1154. SMITH, J. B. The peach borer (*Sanninoidea exitiosa* Say). Experiments with hydraulic cement. <Bull. No. 128, N. J. Agric. Exp. Sta., March, 1898, pp. 28, 7 figs.
A general account, especially in regard to remedies.
1155. SMITH, J. B. Wild cherry as a worm trap. <Amer. Agriculturist, 1 January, 1898, p. 4.
Of no value, besides a home for other pests.
1156. SMITH, J. B. The wintering of plant-lice. <Orange Judd Farmer, 8 January, 1898, 1 fig. <Amer. Agriculturist, 8 January, 1898, p. 38, 1 fig.
1157. SMITH, J. B. San Jose scale. <Farm Journal, February, 1898, p. 43.
1158. SMITH, J. B. Greenhouse pests, San Jose scale, and legislation vs. insects. <Weekly Florists' Review, 31 March, 1898, pp. 736-738. <Gardening, 15 May, 1898, pp. 266-268.
Treats of a number of species, with remedies.
1159. SMITH, J. B. Quarantine against injurious insects. <Entom. News, April, 1898, pp. 91-95.

1161. SMITH, J. B. Regulating the San Jose scale by law. <Rural New Yorker, 7 May, 1898, p. 341; 21 May, 1898, p. 373; 28 May, 1898, pp. 383-384.
1162. SMITH, J. B. Crude petroleum as an insecticide. <Entom. News, October, 1898, pp. 200-201.
Experiments against San Jose scale.
1163. SMITH, J. B. The distribution of the San Jose scale or pernicious scale in New Jersey. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 32-39.
1164. SMITH, J. B. Quarantine against foreign insects: How far can it be effective? <Proc. 19th Ann. Meet. Soc. Prom. Agric. Sci., 1898, pp. 90-100.
1165. SMITH, J. B. The San Jose scale at home. <Rural New Yorker, 19 August, 1899, p. 597.
1166. SMITH, J. B. Crude petroleum as an insecticide. <Bull. No. 138, N. J. Agric. Exp. Sta., September, 1899, pp. 22, 4 pls.
Experiments with this substance.
1167. SMITH, J. B. Three common orchard scales. <Bull. No. 140, N. J. Agric. Exp. Sta., October, 1899, pp. 16, 9 figs.
Treats of *Mytilaspis pomorum*, *Chionaspis furfurus*, and *Aspidiotus perniciosus*.
1168. SMITH, J. B. Insecticides and parasites. <Rept. N. J. State Bd. Agric., 1898-99 (1899), pp. 117-130.
1169. SOUTHWICK, J. M. Insects. <Rept. R. I. State Bd. Agric. f. 1898, pp. 83-94, 6 figs.
1170. SPAULDING, I. The San Jose scale scare. <Gardening, 1 March, 1898. <Natl. Nurseryman, 1898, p. 32. <Farm, Field and Fireside, 2 April, 1898, p. 423. <Prairie Farmer, 5 March, 1898, p. 8.
1171. STACKLAND, K. J. The codlin moth at Cove. <Oreg. Agric. and Rural Northwest, 1 June, 1899, p. 275.
1172. STARK BROS. San Jose scale a bugbear. <Farm Journal, March, 1898, p. 74.
1173. STARNES, H. N. The San Jose and other scales in Georgia. <Bull. No. 36, Ga. Agric. Exp. Sta., October, 1897, pp. 31, 20 figs., 1 map.
Treats of a number of Coccidæ.
1174. STARNES, H. N. Watermelons. <Bull. No. 38, Ga. Agric. Exp. Sta., December, 1897, pp. 80-84, 3 figs.
Notes on the insect pests *Margaronia hyalinata*, *Aphis gossypii*, *Diabrotica vittata*, and *Crepidodera cucumeris*.
1175. STARNES, H. N. Fruit culture. <Ann. Rept. Dept. Agric. Ga. f. 1898, Vol. XXIV, pp. 377-498.
Treats of insects on apple, peach, pear, plum, and grape.

1176. STARNES, H. N. Some peach notes. <Bull. No. 42, Ga. Agric. Exp. Sta., March, 1899, pp. 225-229, 7 figs.
A brief account of the insect enemies of the peach.
1177. STEDMAN, J. M. The woolly aphid of the apple tree. <Colman's Rural World, 18 February, 1897, p. 51.
1178. STEDMAN, J. M. Is chinch bug infection a failure? <Colman's Rural World, 4 March, 1897.
1179. STEDMAN, J. M. The danger to American horticulture from the introduction of injurious insects. <Colman's Rural World, 1 April, 1897, p. 99.
1180. STEDMAN, J. M. San Jose scale in Missouri. <Mo. State Hortic. Soc., 1897, pp. 312-317.
1181. STEDMAN, J. M. The San Jose scale in Missouri. <Bull. No. 41, Mo. Agric. Exp. Sta., January (February), 1898, pp. 35, 8 figs.
A general account, with notes on occurrence in Missouri.
1182. STEDMAN, J. M. A new orchard pest—the fringed-wing apple-bud moth. <Bull. No. 42, Mo. Agric. Exp. Sta., April, 1898, pp. 36-53, 10 figs.
Treats of *Nothris(?) maligemmella*.
1183. STEDMAN, J. M. A new orchard pest—the fringed-wing apple-bud moth (*Nothris(?) maligemmella* n. sp.). <Can. Entom., May, 1898, pp. 109-112, 5 figs.
1184. STEDMAN, J. M. Corn root worm. <St. Louis Journ. Agric., 12 May, 1898, p. 412.
1185. STEDMAN, J. M. The woolly-aphid of the apple. <Cir. of Information No. 6, Mo. Agric. Exp. Sta., June, 1898, pp. 11, 2 figs.
Brief general account of *Schizoneura lanigera*.
1186. STEDMAN, J. M. The tarnished plant-bug. <Bull. No. 47, Mo. Agric. Exp. Sta., June, 1899, pp. 77-87, 3 figs.
General account, with remedies.
1187. STEDMAN, J. M. The fruit-tree bark-beetle. <Bull. No. 44, Mo. Agric. Exp. Sta., October, 1898 (April, 1899), pp. 1-12, 4 figs.
A full account of *Scolytus rugulosus*.
1188. STEDMAN, J. M. The common apple-tree and peach-tree borers. <Bull. No. 44, Mo. Agric. Exp. Sta., October, 1898 (April, 1899), pp. 12-19, 3 figs.
Notes on *Sannina exitiosa*, *Superda candida*, and *Chrysobothris femorata*.
1189. STEELE, F. K. Mosquito's bite. <Meehan's Monthly, December, 1897, p. 224.
1190. STEPHENS, E. F. Protecting from the apple worm. <Nebraska Farmer, 4 May, 1899, p. 298.

1191. STEWART, H. The scab in sheep; its nature, prevention, and cure. <Country Gentleman, 22 June, 1899, p. 492.
1192. STINSON, J. T. Insects. <Bull. No. 43, Ark. Agric. Exp. Sta., pp. 105-117, 9 figs.
Notes on *Paleacrita vernata*, *Anisopteryx pometaria*, *Amphicerus bicaudatus*, *Desmia maculalis*, *Fidia viticida*, and *Thyridopteryx ephemeraformis*.
1193. STONE, G. E., and SMITH, R. E. Nematode worms. <Bull. No. 55, Mass. Agric. Exp. Sta., November, 1898, pp. 67, 12 pls., 2 figs.
Account of their injuries to greenhouse plants, life history, and remedies.
1194. STORMENT, E. L. The white pine Chermes. <20th Ann. Rept. State Entom. Ill., February, 1898, appendix, pp. iii-xxiv, 2 pls.
Full account of *Chermes pinicorticis*.
1195. STRONG, S. DE L. VAN RENSSELAER. Two insect pests. <Garden and Forest, 14 July, 1897, p. 278.
Note on *Phytomyza aquilegiæ*, and the butternut woolly worm (*Selandria caryæ*).
1196. STUBBS, W. C. Analyses of Paris green. <Bull. No. 54, s. s., La. Agric. Exp. Sta., February, 1899, pp. 95-104.
Includes State legislation concerning the sale of Paris green.
1197. STURGIS, W. C. The spread of the San Jose scale in Connecticut. <Rept. Conn. Agric. Exp. Sta. f. 1896 (1897), pp. 282-284.
1198. STURGIS, W. C. Fir-tree oil as an insecticide. <Garden and Forest (No. 487), 1897, p. 249.
1200. SUMMERS, H. E. The San Jose scale. <Trans. Iowa State Hortie. Soc. f. 1898 (1898), pp. 285-288.
A general article.
1201. SUMMERS, H. E. Remedy for squash borer. <Orange Judd Farmer, 1 April, 1899.
1202. TAFT, L. R. A new pest. <Michigan Farmer, 29 July, 1897.
Note on *Psylla pyricola*.
1203. TAFT, L. R. Spraying calendar. <Spec. Bull. No. 12, Mich. Agric. Exp. Sta., March, 1899.
1204. TAFT, L. R., and GLADDEN, H. P. Strawberry culture. <Bull. No. 163, Mich. Agric. Exp. Sta., November, 1898, pp. 57-58.
Notes on leaf roller and weevil.
1205. TAYLOR, E. R. The bean weevil. <Prairie Farmer, 6 March, 1897, p. 4.
1206. THAYER, E. W. Striped bug; potato bug. <Colman's Rural World, 2 September, 1897.
Advocates use of saltpeter dissolved in water for *Diabrotica*.

1207. TILLINGHAST, J. A., and ADAMS, G. E. Suggestions as to spraying. <Bull. No. 52, R. I. Agric. Exp. Sta., February, 1899, pp. 7-48.
Suitable treatment for various insects.
1208. TINSLEY, J. D. *Aspidiotus ancylus* in the Mesilla Valley. <S. W. Farm and Orchard, March, 1897.
1209. TOUMEY, J. W. The date palm. <Bull. No. 29, Ariz. Agric. Exp. Sta., June, 1898, pp. 146-148, 1 fig.
Notes on a few insects injurious to this plant, principally *Parlatoria vitrix*.
1210. TROOP, J. The San Jose scale. <Prairie Farmer, 30 January, 1897, p. 9.
1211. TROOP, J. The San Jose scale. <Country Gentleman, 29 April, 1897.
1212. TROOP, J. San Jose scale in Indiana. <Prairie Farmer, 23 October, 1897, p. 9.
1213. TROOP, J. The San Jose scale in Indiana. Newspaper bulletin. <Field, Farm and Fireside, December, 1897.
1214. TROOP, J. Insecticides, fungicides, and spraying. <Bull. No. 69, Ind. Agric. Exp. Sta., March, 1898, pp. 33-40.
General directions for preparation and use of insecticides.
1215. TROOP, J. The San Jose and other scale insects, and the Indiana nursery-inspection law. <Bull. No. 78, Ind. Agric. Exp. Sta., May, 1899, pp. 45-52, 3 figs.
Notes on *Aspidiotus perniciosus*, *A. ancylus*, *Mytilaspis pomorum*, and *Chionaspis furfurus*.
1216. VAN DEMAN, H. E. The caprifig and the fig wasp. <Calif. Fruit Grower, 25 June, 1898, p. 4.
1217. VANDERFORD, C. F. Harlequin cabbage-bug. <Tennessee Farmer, 30 July, 1898.
1218. VAN SLYKE, L. L. Report of analyses of Paris green and other insecticides. <Bull. No. 165, N. Y. State Agric. Exp. Sta., December, 1899.
1219. W[—], F. A. The San Jose scale. <Country Gentleman, 26 October, 1899, p. 853.
1220. W[—], G. E. The grain weevils and insects. <Country Gentleman, 29 September, 1898, pp. 773-774.
A general article.
1221. WALDRON, C. B. Some destructive insects. <Bull. No. 34, N. Dak. Agric. Exp. Sta., December, 1898, pp. 293-304.
General notes on various species, principally *Melanoplus spretus*.
1222. WALKER, E. The fruit bark beetle. <Southern Farmer and Hortic., July, 1898, pp. 214-215.
Popular article on *Scolytus rugulosus*.

1223. WALKER, E. San Jose scale. <Southern Farmer and Hortic., August, 1898, pp. 243-244.
Popular article on this pest.
1224. WALKER, E. The apple twig borer. <Cotton Planter, 21 April, 1899.
Treats of *Amphicerus bicaudatus*.
1225. WARREN, B. H. The army worm. <Ann. Rept. Pa. Agric. Exp. Sta. f. 1896 (1897), pp. 164-220, 8 pls.
Treats also of birds eating the army worm; loss by worm in the State at least \$300,000.
1226. WAUGH, F. A. A report on the occurrence of the cabbage root maggot. <Rept. Vt. Agric. Exp. Sta. f. 1896 (1897), pp. 116-119.
Treats of *Phorbia brassicæ*.
1227. WAUGH, F. A. Insects and pollination. Report of the horticulturist. <11th Ann. Rept. Vt. Agric. Exp. Sta., March, 1899, pp. 245-247.
Insects visiting plum blossoms.
1228. WEBB, W. Report on San Jose scale. <Trans. Penin. Hortic. Soc., February, 1898, pp. 114-115.
1229. WEBBER, H. J. More on the white fly. <Fla. Farmer and Fruit Grower, 20 March, 1897.
1230. WEBBER, H. J. Warfare against scale insects. <Calif. Fruit Grower, 28 August, 1897, p. 4; 4 September, 1897, p. 4.
Deals chiefly with certain fungous parasites of scale insects.
1231. WEBBER, H. J. Notes on orange diseases in Florida. <Rural Calif., September, 1897, pp. 321-322.
Notes on *Penthales mytilaspidis*, the purple or hairy mite.
1232. WEBBER, H. J. Sooty mold of the orange and its treatment. <Bull. No. 13, Div. of Physiol. and Path., U. S. Dept. Agric., 1897, pp. 34, 5 pls.
Treats of fungi affecting *Aleyrodes citri* and *Ceroplastes floridensis*.
1233. WEBSTER, F. M. Report of the entomologist. <15th Ann. Rept. Ohio Agric. Exp. Sta., f. 1886 (1897), pp. xxxii-xxxvi.
Brief notes on several insects.
1234. WEBSTER, F. M. Address on San Jose scale. <Agric. Rept. Ohio f. 1896 (1897), pp. 259-260.
1235. WEBSTER, F. M. Chinch bug and Hessian fly. <Agric. Rept. Ohio f. 1896 (1897), pp. 489-495, 4 maps.
1236. WEBSTER, F. M. Address on the San Jose scale. <Proc. 52d Ann. State Agric. Conv., Columbus, Ohio, January 14, 1897.

1237. WEBSTER, F. M. The chinch bug and other destructive insects. <Bull. No. 77, Ohio Agric. Exp. Sta., February, 1897, pp. 33-52, 11 figs.
Besides the chinch bug, notes on *Agrilus sinuatus*, *Diplosis pyrivora*, *Zeuzera pyrina*, and *Ceutorhynchus rapæ*.
1238. WEBSTER, F. M. The 17-year locust in Ohio. <Ohio Farmer, 20 May, 1897, p. 40, 1 map.
Expected occurrence in the State.
1239. WEBSTER, F. M. The San Jose scale in Ohio. <Bull. No. 81, Ohio Agric. Exp. Sta., July, 1897, pp. 177-212, 13 figs.
1240. WEBSTER, F. M. The Hessian fly. <Ohio Farmer, 2 September, 1897, p. 157, 1 map.
1241. WEBSTER, F. M. Brood XV of *Cicada septendecim* in Ohio. <Can. Entom., October, 1897, pp. 225-229.
Distribution of Brood XV in Ohio in 1897.
1242. WEBSTER, F. M. Inquiries answered. <Ohio Farmer, 14 October, 1897, p. 288.
Notes on *Lygus pratensis*, *Sannina exitiosa*, *Selandria cerasi*, *Schizura unicornis*, and rat-tail maggot.
1243. WEBSTER, F. M. Applied entomology, No. 1. <Ohio Farmer, 28 October, 1897, p. 336.
1244. WEBSTER, F. M. The periodical cicada, or so-called seventeen-year locust, in Ohio. <Bull. No. 87, Ohio Agric. Exp. Sta., November, 1897, pp. 37-68, 11 figs.
Distribution in Ohio, habits, natural enemies, etc.
1245. WEBSTER, F. M. The San Jose scale and the periodical cicada. <Newspaper bulletin, Ohio Agric. Exp. Sta., November, 1897, pp. 2.
1246. WEBSTER, F. M. Inquiries answered. <Ohio Farmer, 11 November, 1897, p. 363.
Notes on bagworm, bean weevil, fruit bark beetle, and *Diplosis tritici*.
1247. WEBSTER, F. M. Applied entomology, No. 2. <Ohio Farmer, 18 November, 1897, p. 383.
1248. WEBSTER, F. M. Wheat midge or red weevil, No. 1. <Ohio Farmer, 9 December, 1897, p. 447. No. 2, *ibid.*, 16 December, 1897, p. 467.
Treats of *Diplosis tritici*.
1249. WEBSTER, F. M. Entomology for farmers, No. 4. <Ohio Farmer, 30 December, 1897, p. 511.
Treats of a few common insects.
1250. WEBSTER, F. M. Report of committee on entomology. <Ohio State Hortic. Soc., 1897, pp. 62-67, 1 fig.
Notes on *Melanoplus bivittatus*, *Cnecetra distincta*, *Crioceris asparagi*, *Teras minuta*, *Lina scripta*, *Murgantia histrionica*, and *Aspidiotus perniciosus*.

1251. WEBSTER, F. M. The present and future of applied entomology in America. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 5-15.
1252. WEBSTER, F. M. Entomology for farmers, No. 5. <Ohio Farmer, 13 January, 1898, p. 23.
Treats of some common insects.
1253. WEBSTER, F. M. Inquiries answered. <Ohio Farmer, 3 February, 1898, p. 83.
Notes on wireworms.
1254. WEBSTER, F. M. Some recent additions to the insect fauna of Ohio. <Can. Entom., April, 1898, pp. 78-81, 1 fig.
Notes on *Diaspis amygdali* and *Lecanium armeniacum*.
1255. WEBSTER, F. M. Inquiries answered. <Ohio Farmer, 7 April, 1898, p. 279.
Notes on grasshoppers, katydids, and melon borer.
1256. WEBSTER, F. M. Entomology. <Ohio Farmer, 12 May, 1898, p. 383.
Hoplia trifasciata on cherry trees, use of pure kerosene, and oyster-shell bark louse.
1257. WEBSTER, F. M. Entomology. <Ohio Farmer, 19 May, 1898, p. 403.
Notes on clover-leaf weevil and scurvy bark louse.
1258. WEBSTER, F. M. Entomology. <Ohio Farmer, 9 June, 1898, p. 463.
Notes on spraying tobacco insects, legislation, Cecropia moth, and flea-beetles on potatoes.
1259. WEBSTER, F. M. Entomology. <Ohio Farmer, 16 June, 1898, p. 485.
Notes on *Anthrenus scrophulariæ*.
1260. WEBSTER, F. M. The importation of the San Jose scale (*Aspidiotus perniciosus*) from Japan. <Can. Entom., July, 1898, pp. 169-172.
1261. WEBSTER, F. M. Peach borer and leaf curl. <Michigan Farmer, 2 July, 1898, p. 15.
1262. WEBSTER, F. M. Balance wheels in nature. <Ohio Farmer, 18 August, 1898, p. 217.
1263. WEBSTER, F. M. Entomology. <Ohio Farmer, 1 September, 1898, p. 143.
Notes on *Chionaspis furfurus*, *Siphonophora avenæ*, *Mytilaspis pomorum*, and *Aphis maidi-radicis*.
1264. WEBSTER, F. M. Answers to inquiries. <Ohio Farmer, 15 September, 1898, p. 183.
1265. WEBSTER, F. M. Answers to inquiries. <Ohio Farmer, 21 September, 1898, p. 203, 2 figs.

1266. WEBSTER, F. M. Balance wheel in nature, No. 4. <Ohio Farmer, 13 October, 1898, p. 263.
1267. WEBSTER, F. M. Answers to inquiries. <Ohio Farmer, 10 November, 1898, p. 343.
1268. WEBSTER, F. M. Inquiries answered. <Ohio Farmer, 24 November, 1898, p. 383.
1269. WEBSTER, F. M. The chinch bug. <Bull. No. 15, Div. Ent., U. S. Dept. Agric., November, 1898, pp. 82, 19 figs.
A full account of the insect.
1270. WEBSTER, F. M. Inquiries answered. <Ohio Farmer, 1 December, 1898, p. 487.
1271. WEBSTER, F. M. Distribution of Broods XXII, V, and VIII of *Cicada septendecim* in Indiana. <Proc. Ind. Acad. Sci. f. 1898, 3 pp., 1 fig.
1272. WEBSTER, F. M. Report of the committee on entomology. <Ann. Rept. Ohio State Hortic. Soc. f. 1898, pp. 10, 6 figs.
Notes on *Blissus leucopterus*, *Eudemis botrana*, *Ampelogypter sesostris*, *Aphis prunicola*, *Aspidiotus perniciosus*, *Aphis prunifolia*, and ladybirds.
1273. WEBSTER, F. M. Some economic features of international entomology. <29th Ann. Rept. Entom. Soc. Ontario, 1898 (1899), pp. 28-35.
1274. WEBSTER, F. M. Some recent developments in the San Jose scale problem in Ohio. <Proc. 19th Ann. Meet. Soc. Prom. Agric. Sci., f. 1898 (1899), pp. 112-119.
Use of pure kerosene, whale-oil soaps, and hydrocyanic-acid gas.
1275. WEBSTER, F. M. The San Jose scale problem in Ohio. <Bull. No. 103, Ohio Agric. Exp. Sta., March, 1899, pp. 185-200, 4 figs.
1276. WEBSTER, F. M. The chinch bug. <Bull. No. 106, Ohio Agric. Exp. Sta., April, 1899, pp. 237-248, 6 figs.
1277. WEBSTER, F. M. Experiments with insecticides. <Bull. No. 106, Ohio Agric. Exp. Sta., April, 1899, pp. 248-256.
1278. WEBSTER, F. M. The Hessian fly. <Bull. No. 107, Ohio Agric. Exp. Sta., May, 1898, pp. 257-288.
1279. WEBSTER, F. M. Entomology. <Ohio Farmer, 25 May, 1899, p. 449.
Notes on *Mytilaspis pomorum*, *Scolytus rugulosus*, *Anomala bicicola*, and *Ithycerus noreboracensis*.
1280. WEBSTER, F. M. Crane flies. <Ohio Farmer, 25 May, 1899, p. 433, 1 fig.
1281. WEBSTER, F. M. Fatal temperature for *Diaspis amygdali* Tryon. <Can. Entom., June, 1899, p. 130.

1282. WEBSTER, F. M. Winter breeding of *Diabrotica vittata* in forcing houses. <Can. Entom., June, 1899, p. 136.
1283. WEBSTER, F. M. Entomology. <Ohio Farmer, 20 June, 1899, p. 533.
Notes on *Myzus cerasi*, *Mytilaspis pomorum*, and *Lecanium armeniacum*.
1284. WEBSTER, F. M. The tobacco flea-beetle (*Epitrix parvula*) attacking tobacco in barn. <Can. Entom., July, 1899, pp. 194-195.
1285. WEBSTER, F. M. Entomology. <Ohio Farmer, 20 July, 1899, p. 46.
Notes on white grubs and cutworms.
1286. WEBSTER, F. M. Entomology. <Ohio Farmer, 27 July, 1899, p. 62.
Notes on *Colopha ulmicola*, *Thalessa lunator*, and grasshoppers.
1287. WEBSTER, F. M. Entomology. <Ohio Farmer, 3 August, 1899, p. 78.
Notes on *Bruchus pisi*, *Melittia ceto*, and grasshoppers.
1288. WEBSTER, F. M. Entomology. <Ohio Farmer, 24 August, 1899, p. 123.
White grubs destroyed by skunks.
1289. WEBSTER, F. M. Entomology. <Ohio Farmer, 31 August, 1899, p. 152.
Notes on *Diabrotica vittata*, *Culandra granaria*, *Cicada septendecim*, and *Telea polyphemus*.
1290. WEBSTER, F. M. Lady beetles, No. 1. <Ohio Farmer, 7 September, 1899, p. 172, 3 figs.
1291. WEBSTER, F. M. Some unappreciated friends of the farmer. <Ohio Farmer, 14 September, 1899, p. 192.
1292. WEBSTER, F. M. Entomology. <Ohio Farmer, 28 September, 1899, p. 232.
Notes on bisulphide of carbon for stored-grain insects, San Jose scale, and oil beetle.
1293. WEBSTER, F. M. Some unseen friends. <Ohio Farmer, 1899; 5 October, p. 252; 12 October, p. 272; 19 October, p. 294; 26 October, p. 318; 23 November, p. 404; 28 December, p. 518.
Deals with beneficial insects, insectivorous birds, skunks, and toads.
1294. WEBSTER, F. M. Answers to inquiries. <Ohio Farmer, 26 October, 1899, p. 318.
Notes on *Ceresa bubalus* and *Schizoneura lanigera*.
1295. WEBSTER, F. M. Insectary and office methods. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 46-53.

1296. WEBSTER, F. M. An interesting outbreak of chinch bug in northern Ohio. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 55-56.
1297. WEBSTER, F. M. Answers to inquiries. <Ohio Farmer, 2 November, 1899, p. 340.
Notes on fall army worm.
1298. WEBSTER, F. M. Fall treatment of insects. <Press Bull. No. 200, Ohio Agric. Exp. Sta., 6 November, 1899, 2 pp. <Ohio Farmer, 9 November, 1899, p. 360.
Notes on treatment for Hessian fly and chinch bug.
1299. WEBSTER, F. M. Fall plowing vs. white grubs and wire worms. <Press Bull. No. 201, Ohio Agric. Exp. Sta., 13 November, 1899, 2 pp.
1300. WEBSTER, F. M. Inquiries answered. <Ohio Farmer, 16 November, 1899, p. 382.
1301. WEBSTER, F. M. Answers to inquiries. <Ohio Farmer, 30 November, 1899, p. 426.
Note on *Papilio turnus*.
1302. WEBSTER, F. M. The clover root borer. <Bull. No. 112, Ohio Agric. Exp. Sta., December, 1899, pp. 143-149, 1 pl.
Treats of *Hylastes obscurus*.
1303. WEBSTER, F. M., and MALLY, C. W. Insects of the year in Ohio. <Bull. No. 9, n. s., Div. Ent., U. S. Dept. Agric., 1897, pp. 40-45.
Brief notes on various common species.
1304. WEBSTER, F. M., and MALLY, C. W. The army worm and other insects. <Bull. No. 96, Ohio Agric. Exp. Sta., September, 1898, pp. 26, 4 pls.
Treats of *Leucania unipuncta*, *Pachynematus extensicornis*, *Dolerus arvensis*, *D. collaris*, *Heliothis armiger*, *Cytlene pictus*, *Oberca bimaculata*, and *Diaspis amygdali*.
1305. WEBSTER, F. M., and MALLY, C. W. Insects of the year in Ohio. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 98-102.
1306. WEBSTER, F. M., and MALLY, C. W. Insects of the year in Ohio. <Bull. No. 20, n. s., Div. Ent., U. S. Dept. Agric., November, 1899, pp. 68-73.
1307. WEED, C. M. The canker worm. <Bull. No. 44, N. H. Agric. Exp. Sta., April, 1897, pp. 32-41, 7 figs.
1308. WEED, C. M. The golden-eye or lace-wing fly. <Amer. Nat., June, 1897, pp. 500-502, 1 fig.
1309. WEED, C. M. The insect record for 1897. <9th Ann. Rept. N. H. Agric. Exp. Sta., March, 1898, pp. 139-145, 8 figs.
Notes on tent caterpillars, cankerworms, apple worms, squash bugs, and oyster-shell bark louse.

1310. WEED, C. M. The winter food of the chickadee. <Bull. No. 54, N. H. Agric. Exp. Sta., June, 1898, pp. 85-98, 11 figs.
1311. WEED, C. M. The feeding habits of the chipping sparrow. <Bull. No. 55, N. H. Agric. Exp. Sta., July, 1898, pp. 101-110, 1 fig.
1312. WEED, C. M. The insects eaten by birds—I. <Agric. Education, September, 1898.
1313. WEED, C. M. Notes on tent-caterpillars. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 76-78.
1314. WEED, C. M. Department of entomology. <Bull. No. 59, N. H. Agric. Exp. Sta., November, 1898, p. 199.
Notes on *Clisiocampa americana*, *Vanessa antiopa*, *Hyphantria cunea*, *Edema albifrons*, *Samia cecropia*, *Actias luna*, *Macrodactylus subspinosus*, *Pieris rapæ*, *Bruchus obtectus*, and *raupenleim*.
1315. WEED, C. M. The forest tent caterpillar. <Bull. No. 64, N. H. Agric. Exp. Sta., April, 1899, pp. 75-98, 14 figs.
1316. WEED, C. M. American tent caterpillar. <Amer. Agriculturist, 13 May, 1899, p. 615.
1317. WEED, C. M. The forest tent caterpillar. <Sci. Amer. Supp., 24 June, 1899, p. 19640-19641, 5 figs.
1318. WEED, C. M. The spiny elm caterpillar. <Bull. No. 67, N. H. Agric. Exp. Sta., October, 1899, pp. 125-141, 14 figs.
Treats of *Vanessa antiopa*.
1319. WEED, C. M., and FISKE, W. F. Notes on spruce bark-beetles. <Bull. No. 17, n. s., Div. Ent., U. S. Dept. Agric., November, 1898, pp. 67-69.
Damage by *Dendroctonus rufipennis*.
1320. WEED, H. E. The Colorado potato beetle in Mississippi. <Bull. No. 41, Miss. Agric. Exp. Sta., March, 1897, pp. 185-190.
1321. WEED, H. E. The harlequin cabbage bug. <Prairie Farmer, 1 May, 1897, p. 9.
1322. WEED, H. E. Remedies for cutworms. <Orange Judd Farmer, 15 May, 1897.
1323. WEED, H. E. Killing cabbage worms. <Gardening, 22 May, 1897.
1324. WEED, H. E. The striped cucumber beetle. <Gardening, 22 May, 1897.
1325. WEED, H. E. Spraying for profit. <Griffin, Ga., Hortic. Publ. Co., 1899, pp. 72, 16 figs.
1326. WEEKS, H. C. The extermination of the mosquito. <Sci. Amer. Supp., 20 May, 1899, pp. 19564-19565.
A general account of the various remedies.

1327. WELLES, C. S. Destructive work of *Daremma catalpæ*.
 <Entom. News, December, 1898, pp. 233-235, 1 pl.
1328. WHATELY, W. White arsenic as a substitute for Paris green.
 <Southern Planter, April, 1899, pp. 180-181.
1329. [WICKSON, E. J.] What can be done for *Diabrotica*? <Pacific
 Rural Press, 22 May, 1897, p. 326.
1330. [WICKSON, E. J.] What can be done with the woolly aphis?
 <Pacific Rural Press, 19 February, 1898, p. 117.
1331. [WICKSON, E. J.] Red spider. <Pacific Rural Press, 21 May,
 1898, p. 325.
1332. [WICKSON, E. J.] The vine hopper. <Pacific Rural Press, 2
 July, 1898, p. 3.
1333. [WICKSON, E. J.] Grasshoppers in the orchard. <Pacific
 Rural Press, 9 July, 1898, p. 19.
1334. [WICKSON, E. J.] The rose beetle in Texas. <Pacific Rural
 Press, 9 July, 1898, p. 19.
 Note on *Macroductylus subspinosus*.
1335. [WICKSON, E. J.] Worms in tomatoes. <Pacific Rural Press,
 1 October, 1898, p. 219.
 Note on *Heliothis armiger*.
1336. [WICKSON, E. J.] Pea or bean weevil. <Pacific Rural Press,
 22 October, 1898, p. 267.
1337. [WICKSON, E. J.] Killing fleas in dwellings. <Pacific Rural
 Press, 29 October, 1898, p. 283.
1338. [WICKSON, E. J.] Brown apricot scale. <Pacific Rural Press,
 19 November, 1898, p. 331.
1339. [WICKSON, E. J.] Treatment for the peach moth. <Pacific
 Rural Press, 24 December, 1898, p. 411.
1340. [WICKSON, E. J.] Carrying the codlin moth. <Pacific Rural
 Press, 14 January, 1899, p. 19.
1341. [WICKSON, E. J.] For the peach moth. <Pacific Rural Press,
 11 February, 1899, p. 83.
1342. [WICKSON, E. J.] To escape borers. <Pacific Rural Press, 18
 March, 1899, p. 163.
1343. [WICKSON, E. J.] Cutworm moths. <Pacific Rural Press, 22
 April, 1899, p. 243.
1344. [WICKSON, E. J.] Band treatment for codlin moth. <Pacific
 Rural Press, 5 May, 1899, p. 275.
1345. [WICKSON, E. J.] Lecanium scale on prune. <Pacific Rural
 Press, 6 May, 1899, p. 275.
 Occurrence of *Lecanium pruinsum*.
 14507-01-7

1346. [WICKSON, E. J.] Cactus juice for red spider. <Pacific Rural Press, 13 May, 1899, p. 291.
1347. [WICKSON, E. J.] Olive twig and vine cane borer. <Pacific Rural Press, 20 May, 1899, p. 307.
Note on *Polycaon confertus*.
1348. [WICKSON, E. J.] False chinch bug. <Pacific Rural Press, 20 May, 1899, p. 307.
Note on *Nysius destructor*.
1349. [WICKSON, E. J.] Brown apricot scale. <Pacific Rural Press, 3 June, 1899, p. 339.
1350. [WICKSON, E. J.] Cabbage worms. <Pacific Rural Press, 3 June, 1899, p. 339.
1351. [WICKSON, E. J.] Crown borer of the peach. <Pacific Rural Press, 10, June, 1899.
1352. [WICKSON, E. J.] Cabbage lice. <Pacific Rural Press, 17 June, 1899, p. 371.
1353. [WICKSON, E. J.] Spraying for red spider. <Pacific Rural Press, 17 June, 1899, p. 371.
1354. [WICKSON, E. J.] The Hessian fly. <Pacific Rural Press, 24 June, 1899.
1355. [WICKSON, E. J.] The oak worm. <Pacific Rural Press, 1 July, 1899, p. 3.
Note on *Phryganidea californica*.
1356. [WICKSON, E. J.] Ticks on fowls. <Pacific Rural Press, 12 August, 1899, p. 99.
1357. [WICKSON, E. J.] The yellow mite. <Pacific Rural Press, 19 August, 1899, p. 118.
1358. [WICKSON, E. J.] Brown apricot scale at Healdsburg. <Pacific Rural Press, 9 September, 1899.
1359. [WICKSON, E. J.] A cypress borer. <Pacific Rural Press, 21 October, 1899, p. 259.
Note on *Phlaeosinus cristatus*.
1360. [WICKSON, E. J.] Woolly aphis on nursery stock. <Pacific Rural Press, 23 December, 1899.
1361. WIDLAK, W. Insect extermination. <Amer. Miller, 1 October, 1897.
1362. WILCOX, E. V. The grain aphis. <Bull. No. 17, Mont. Agric. Exp. Sta., April, 1898, pp. 1-9.
General account, with remedies for *Siphonophora avenæ*.
1363. WILCOX, E. V. An army cutworm. <Bull. No. 17, Mont. Agric. Exp. Sta., April, 1898, pp. 10-18, 2 figs.
An account of an outbreak of *Chorizagrotis agrestis*.

1364. WILLICOMBE, G. Remedies for orange insects. <Fla. Farmer and Fruit Grower, 31 December, 1898.
1365. WILLSON, J. M. Spraying the orchard. <Agric. Epitomist, June, 1899.
1366. WOOD, C. D. Shot-borer or pear blight beetle. <Amer. Agriculturist, 24 July, 1897, p. 78.
1367. WOOD, E. M. Rose pests. <Weekly Florists' Review, 17 August, 1899, pp. 284-286. <Amer. Florist, 23 September, 1899, pp. 222-223.
Treats of a number of species.
1368. WOODS, A. F. The bulb mite. <Florists' Exchange, 23 April, 1898, pp. 430-431, 1 fig.
Notes on habits and remedies for *Rhizoglyphus spinitarsus*.
1369. WOODS, C. D. The locust tree borer. <Farm and Home, 1 September, 1898.
Notes on *Cyllene robiniae*.
1370. WOODS, P. T. Insects affecting poultry. <Farm-Poultry, 1899, 15 January, p. 24; 1 February, p. 51; 15 February, pp. 63-64; 1 March, pp. 84-85; 15 March, pp. 102-103; 1 April, pp. 127-128.
Notes on insects and mites that affect poultry.
1371. WOODWARD, J. S. Heading off cankerworms. <Rural New Yorker, 24 April, 1897, p. 275.
1372. WOODWORTH, C. W. Vine hopper. <Pacific Rural Press, 22 May, 1897, p. 326.
1373. WOODWORTH, C. W. Remedies for insects and fungi. <Rept. Agric. Exp. Sta. Univ. Calif., March, 1898, pp. 213-231.
1374. WOODWORTH, C. W. Scale problem in California. <Pacific Rural Press, 12 November, 1898, pp. 316-317.
1375. WOODWORTH, C. W. Scale problem. <Rept. State Bd. Hortic. Oreg. f. 1897-98 (1899), pp. 371-374, 1 pl.
1376. WOODWORTH, C. W., and COLBY, G. E. Paris green for the codling moth. <Bull. No. 126, Calif. Agric. Exp. Sta., December, 1899, pp. 40, 2 figs.
A study of Paris green, especially as to purity, etc.
1377. WOOLSON, G. T. Plant pests in the window. <Amer. Agriculturist, 22 January, 1898, p. 94.
1378. ———. Codlin moth and spraying. <Calif. Fruit Grower, 1 April, 1897, p. 4.
1379. ———. Insect pests and sprays. <Calif. Fruit Grower, 19 February, 1898.
Treats of California peach-tree borer.

1380. WOOLSON, G. T. Codlin moth. <Calif. Fruit Grower, 19 March, 1898, p. 4.
1381. ———. The red spider. <Calif. Fruit Grower, 20 August, 1898, p. 4.
1382. ———. [Red-spider remedies.] <Calif. Fruit Grower, 24 June, 1899.
1383. ———. Mexican orange maggot in California. <Calif. Fruit Grower, 25 November, 1899.

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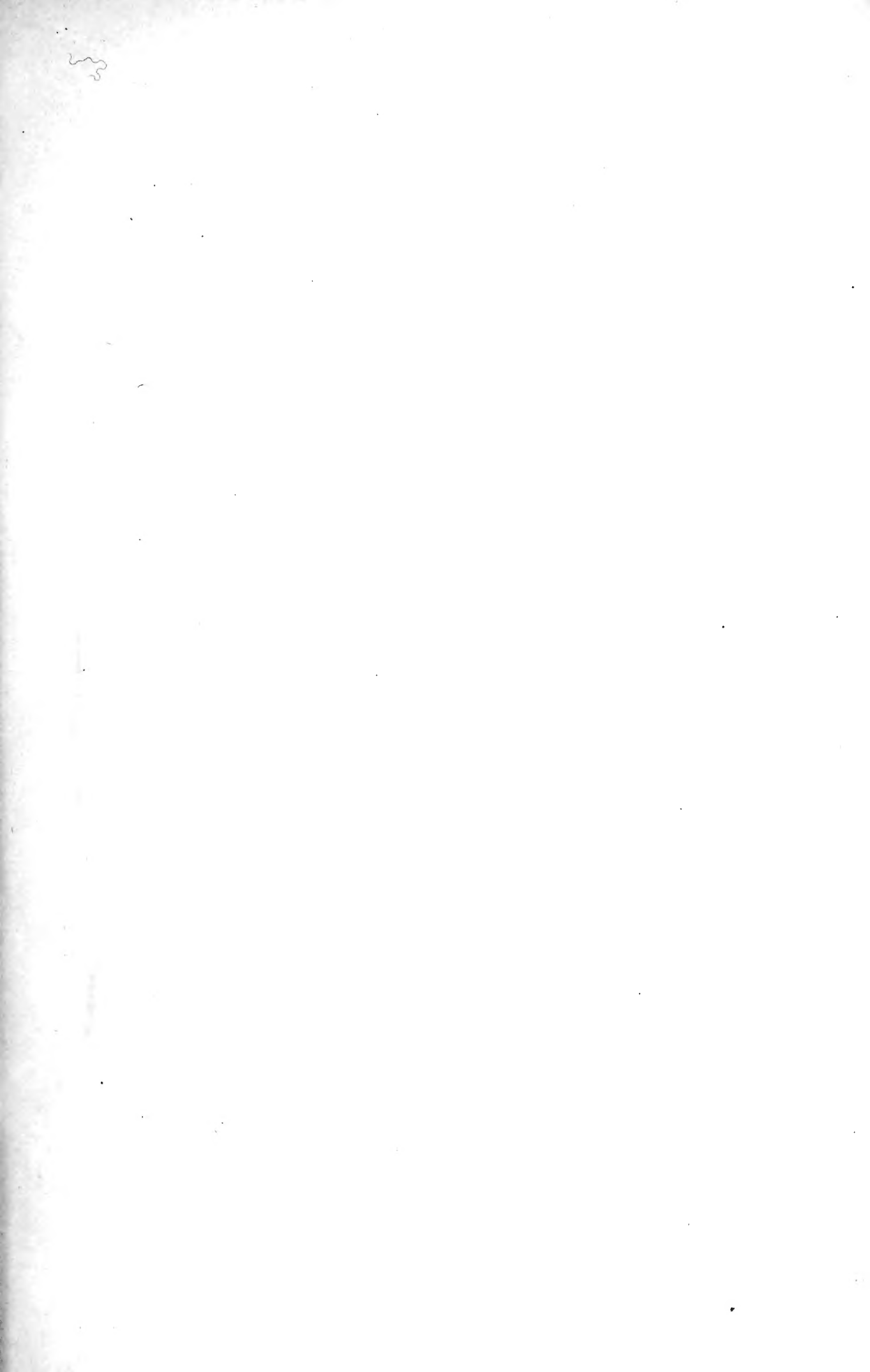
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